TAPR APRS Specification Discussion Mailing List Archive, January 2001 through May 2003

January 2001 through May 2003

TAPR's forum for documenting and refining the APRS protocol specification, including packet formats, position and object reports, messaging, telemetry, Mic-E, weather data, symbols, digipeating, Internet gateways, interoperability, and implementation questions.

This volume contains 29 original monthly files and 939 messages, arranged chronologically. The PDF is a readable access copy: MIME transfer encodings are decoded, HTML bodies are converted to plain text, and non-text attachments are represented by descriptive notes. The raw source text is supplied separately with the Internet Archive item.

Month	Messages	Original source file
2001-01	34	aprsspec.0101
2001-02	63	aprsspec.0102
2001-03	68	aprsspec.0103
2001-04	60	aprsspec.0104
2001-05	3	aprsspec.0105
2001-06	7	aprsspec.0106
2001-07	35	aprsspec.0107
2001-08	81	aprsspec.0108
2001-09	32	aprsspec.0109
2001-10	9	aprsspec.0110
2001-11	3	aprsspec.0111
2001-12	6	aprsspec.0112
2002-01	3	aprsspec.0201
2002-02	11	aprsspec.0202
2002-03	34	aprsspec.0203
2002-04	42	aprsspec.0204
2002-05	99	aprsspec.0205
2002-06	34	aprsspec.0206
2002-07	28	aprsspec.0207
2002-08	76	aprsspec.0208
2002-09	50	aprsspec.0209
2002-10	1	aprsspec.0210
2002-11	40	aprsspec.0211
2002-12	6	aprsspec.0212
2003-01	18	aprsspec.0301
2003-02	14	aprsspec.0302
2003-03	30	aprsspec.0303

Month	Messages	Original source file
2003-04	48	aprsspec.0304
2003-05	4	aprsspec.0305

January 2001

Original source file: aprsspec.0101
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0101

1. [aprsspec] UI messaging...

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jan 2001 16:17:41 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128458-2001.01.06-15.30.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Apparently UI-View has implemented its own messaging format that is not
compatible with the APRSspec. Since it uses the TOCALL as the actual
message TO-CALL, the APRS front end filters for ALTNETS will ignore these
messages. I have no problem with this, its Roger's program... but it does
raise the question of whether we want to add this to the APRSspec as
another form of messaging? Or whether we all want to add reception of
this to our code...

It looks like he puts a tilde (~) as the first byte of the data (message)
field and ends with ~xx which appears to be a line number for acking... I
havent seen any acks to know... (of course this will cause stream
switching and confusion to a dual Port KAM on HF with the use of the
reserved "`" stream switch character...)

My only concern it that since UI view is predominately used in Europe and
this messaging is not compatible with other APRS versions... it could
lead to a divergence in the long term that will cause confusion to users
who both think they are running "APRS" but in fact are not able to
communicate.

Maybe when a UI user uses this form of messaging it is very clear that
this is not APRS compatible, and thus there is no reason to be concerned
since the user has mad a conscious choice to not use APRS format... sort
of a semi-private form of messaging...

I'm not taking any position here, it is just something I learned about
today, and thought we might want to be discussing the implications of new
formats on existing APRS networks...

Just a thought...

de WB4APR@amsat.org, Bob

See my APRS LIVE pages   http://web.usna.navy.mil/~bruninga/aprs.html
See APRS SATELLITES   http://web.usna.navy.mil/~bruninga/astars.html
See MIM/Mic-E/Mic-Lite   http://www.toad.net/~wclement/mim2.htm

---
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2. [aprsspec] Re: UI messaging...

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 06 Jan 2001 16:27:13 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128459-2001.01.06-15.42.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 04:17 PM 1/6/01 -0500, Bob Bruninga wrote:
>Apparently UI-View has implemented its own messaging format that is not
>compatible with the APRSspec. Since it uses the TOCALL as the actual
>message TO-CALL, the APRS front end filters for ALTNETS will ignore these
>messages. I have no problem with this, its Roger's program... but it does
>raise the question of whether we want to add this to the APRSspec as
>another form of messaging? Or whether we all want to add reception of
>this to our code...

Exceptions will drive you nuts.

--
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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3. [aprsspec] Re: UI messaging...

From: Bill Diaz <billdiaz@megsinet.net>
Date: Sat, 6 Jan 2001 16:29:05 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128466-2001.01.06-16.41.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob,
  Perhaps this was a decision by Roger to make UI-View
messaging non-compliant with APRS?

If changes were made to the spec to accomodate this
deviation, it would be a long time before existing APRS
applications could correctly handle this. Some may
never be changed.

Is the APRS WG still active? Haven't heard anything lately.
Wasn't one of the tasks of this group was to check to
see if applications were APRS spec compliant?

I don't think Roger was ever invited to participate in any case.

If individual authors can unilaterly add non-compliant messaging
then the specification is not serving its purpose.

Bill KC9XG
On Saturday, January 06, 2001 3:27 PM, David VanHorn [SMTP:dvanhorn@cedar.net]
wrote:
> At 04:17 PM 1/6/01 -0500, Bob Bruninga wrote:
> >Apparently UI-View has implemented its own messaging format that is not
> >compatible with the APRSspec. Since it uses the TOCALL as the actual
> >message TO-CALL, the APRS front end filters for ALTNETS will ignore these
> >messages. I have no problem with this, its Roger's program... but it does
> >raise the question of whether we want to add this to the APRSspec as
> >another form of messaging? Or whether we all want to add reception of
> >this to our code...

>
> Exceptions will drive you nuts.
>

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4. [aprsspec] Re: UI messaging...

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 6 Jan 2001 22:34:02 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128468-2001.01.06-16.48.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-128458-2001.01.06-15.30.19--roger#peaksys.co.uk@lis
ts.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
>Apparently UI-View has implemented its own messaging format that is not
>compatible with the APRSspec.
Etc...

Just a little "scene setting" - When I started writing UI-View well over
two years ago, and developed its message format, compatibility with a
non-existent spec for a protocol that was covered by a copyright claim,
was not something that ever crossed my mind...

However, UI-View now supports both its own and APRS format messages, and
I have given a great deal of thought to doing it in a way that should
not cause a problem for users of other applications:-

If you install UI-View on a PC in the USA or Canada, then, provided the
international settings in Windows are correct, by default the user does

not have the UI-View message format option available. in other parts of
the world, both message formats are available, and the user can set the
default type.

If UI-View receives an APRS format message, then any future messages
sent to the originator will default to being in APRS format.

UI-View will not pass UI-View format messages to an internet server,
because my philosophy is that only APRS compatible traffic should be
passed to the servers.

>I'm not taking any position here, it is just something I learned about
>today, and thought we might want to be discussing the implications of new
>formats on existing APRS networks...

As you will see from the above comments, it's not a "new format". Also,
in most of the countries in which it is used, the level of APRS activity
was virtually zero before UI-View became popular - there were no
"existing APRS networks". I don't think any European countries even had
an APRS frequency allocation.

In the new era of "open" APRS, I've thought about removing the UI-View
message format, but I don't think it causes any problems, and it does
possess some advantages compared to APRS format messages. E.g. shorter
frames, and parallel transmission, with reordering of messages received
out of sequence.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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5. [aprsspec] Re: UI messaging...

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jan 2001 17:38:59 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128470-2001.01.06-16.53.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 7 Jan 2001, PE1RDW (Andre) wrote:

> When you want to send a message to a a ui-view user you can pick aprs
> format or ui-view format, when you send to a non ui-view user you
> automaticly send a aprs format message, the same goes for a message via a
> igate.
>
> So there is no problem there.

Good, thanks. Thats good that it automatically knows to send APRS to APRS
stations... and the user is clearly aware that he is using a different
format so that other APRS stations wont see their messages...

> As for the stream switch char that does not have to be a problem, just use
> kiss mode, it is recomended anyhow as it gives the program more control
> over the frames.

GOod point. It only affects the sender, and since it is UIview using KISS
mode, then again, there is no problem with the tilde...

Thanks..bob

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6. [aprsspec] RE: UI messaging...

From: "Jonathan Bradshaw" <Jonathan@NrgUp.Net>
Date: Sat, 6 Jan 2001 22:47:43 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>

Message-ID: <LYR11589-128473-2001.01.06-17.00.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

UI-View has done this for since before it was APRS compatible. UI-View was
designed before APRS hit the UK but since it did Roger has included support
for an increasing number of APRS elements.

--- From the help:
UI-View(32) supports two formats of message - it's own format and also APRS
format. Although UI-View(32) format has some advantages over APRS format,
users of other APRS software will not be able to receive UI-View(32) format
messages. If you operate in an environment where most users aren't using
UI-View(32), then you should use APRS format.

(and also...)

The default value for "No UI-View(32) extensions" varies depending on what
country you are in. When UI-View32 is run for the first time, it checks your
Windows country code against the list in the file NOEXTN.COD. If your
country code is in that file, then UI-View32 extensions are disabled. Note
that this only happens the very first time UI-View32 is run, so if you alter
the setting for this parameter, UI-View32 won't change it.
--- End

An on-topic discussion would be if UI-View format could help improve APRS
format in the future?

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7. [aprsspec] Re: UI messaging...

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jan 2001 18:09:09 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128476-2001.01.06-17.21.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 6 Jan 2001, Bill Diaz wrote:

> I don't think Roger was ever invited to participate in any case.

Yes he was, I personally invited him. I welcome his input since he is
actively writing code. But he declined. I think his reasons were that
he was just too busy to take on anything else right now...

Bob

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8. [aprsspec] RE: UI messaging...

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jan 2001 18:26:43 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128478-2001.01.06-17.39.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 6 Jan 2001, Jonathan Bradshaw wrote:

> An on-topic discussion would be if UI-View format could help improve APRS
> format in the future?

Yes, I am always open to exploring new ideas. For example, some of us
have implemented a "free-return" ACK protocol, that embeds a reply ack in
all outgoing messages to help improve a two-station dialog.

This was done completely within the bounds of the protocol and the
technique was shared with all the authors. It really speeds up dialgos
since the ACKS are being now "forced" from the receiving end but with a
free ride.. Its just an example of learning new ways to do things without

tearing apart the spec...

Bob

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9. [aprsspec] Re: UI messaging...

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 6 Jan 2001 23:36:00 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128481-2001.01.06-17.48.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <Pine.GSO.4.05L.10101061812590.11922-100000@arctic>, Bob
Bruninga <bruninga@usna.edu> writes
>Thanks Roger,
>
>Good explaination, and I see that you have covered all the bases, so that
>there is no problems. GOod work.
>
>Actually, I liked the idea of parallel messaging also as just another
>tool. Selectible when useful, or sequential at other times when
>important. I was going to add it to APRSdos but then Sprouls then
>abandoned it in WInAPRS because they did not have a means for assuring
>that missed information was obvious. I like your "blank" line approach...

They're not exactly blank, if message lines are missed, they are
replaced on the screen with lines saying e.g. -

seq. number 01
seq. number 02

Where the sequence number represents, in APRS terminology, the message
identifier. If/when those lines are received, then the "seq. number"
lines are replaced with the message lines.

This system can only work if the message identifier has a known, logical
format. So it would never work with APRS messages, because the message
identifier can be any random collection of "up to 5 alphanumeric
characters, no spaces".

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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10. [aprsspec] Re: UI messaging... (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jan 2001 18:36:27 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128482-2001.01.06-17.49.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks Roger,

And it looks like you made ver good provisions to assure there were not
incompatibilities of use... GOod work...

Actually, I liked the idea of parallel messaging also as just another
tool. Selectible when useful, or sequential at other times when
important. I was going to add it to APRSdos but then Sprouls then
abandoned it in WInAPRS because they did not have a means for assuring
that missed information was obvious. I like your "blank" line approach...

Bob

Roger Barker wrote:

> However, UI-View now supports both its own and APRS format messages...

> If you install UI-View on a PC in the USA or Canada, then, provided the
> international settings in Windows are correct, by default the user does
> not have the UI-View message format option available....

> If UI-View receives an APRS format message, then any future messages
> sent to the originator will default to being in APRS format....

> UI-View will not pass UI-View format messages to an internet server...

> As you will see from the above comments, it's not a "new format". Also,
> --
> Roger Barker, G4IDE - roger@peaksys.co.uk

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11. [aprsspec] Re: UI messaging...

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jan 2001 18:41:01 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128483-2001.01.06-17.54.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 6 Jan 2001, Roger Barker wrote:

> This system can only work if the message identifier has a known, logical
> format. So it would never work with APRS messages, because the message
> identifier can be any random collection of "up to 5 alphanumeric
> characters, no spaces".

Yep, that is the problem of a spec by committee. I always wanted and used
-sequential- numbering. They could be any numbers, but within one
message, I wanted them sequential for just the reaons you mention. But
other authors did not want to be bound by anything...

I do think that all of them do do things sequentially, but we cant prove
that now. oh well...

bob

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12. [aprsspec] Re: UI messaging...

From: Roger Barker <roger@peaksys.co.uk>
Date: Sun, 7 Jan 2001 01:15:30 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128492-2001.01.06-19.28.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-128466-2001.01.06-16.41.51--roger#peaksys.co.uk@lis
ts.tapr.org>, Bill Diaz <billdiaz@megsinet.net> writes
[snip]
>
>If individual authors can unilaterly add non-compliant messaging
>then the specification is not serving its purpose.

I hope that my comments elsewhere in this thread will illustrate that
your comment is irrelevant in the context in which the UI-View message
protocol was developed.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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13. [aprsspec] On Air Protocols.

From: "Darryl Smith" <darryl@radio-active.net.au>
Date: Wed, 10 Jan 2001 20:52:19 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128994-2001.01.10-04.02.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

People

One thing missing from the APRS spec is a brief summary of the common NMEA
strings used by hams. There are only three or so, and these should be
implemented in most software...

More importantly it seems that by using my D700 Kenwood in TNC mode I can
transmit positions using an undocumented format, which might appear on air.
The format is

VK2TDS>GPS:$PNTS,1,0,10,01,2001,001853,3400.4672,S,15051.7165,E,34,54.00,0,,
000,1*2E

Most of it is easy to work out, but I think the speed and direction is
somewhere encoded after the position...

Darryl

Darryl Smith, VK2TDS POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au for domain names

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14. [aprsspec] Re: On Air Protocols.

From: Joel Maslak <jmaslak@antelope.net>
Date: Wed, 10 Jan 2001 08:59:33 -0700 (MST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129011-2001.01.10-10.04.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 10 Jan 2001, Darryl Smith wrote:

> VK2TDS>GPS:$PNTS,1,0,10,01,2001,001853,3400.4672,S,15051.7165,E,34,54.00,0,,
> 000,1*2E

This string is also the default (!!??) string that the Alinco 135 will
transmit.

The Alinco 135 TNC docs are very helpful with regards to the NMEA strings.
I have these in electronic form, and I would be glad to send them to
anyone who asks off-list. Please let me know if you want the .txt version
(kind of hard to read) or the .pdf version. Note that I could not locate
ANY copyright string, so I'm assuming that this material is public
domain. If someone from Alinco contacts me and informs me otherwise, I
will stop distributing it (although if you read the docs, you will like
most of what you see).

As obligatory note for the SIG:

The $PNTS string is defined as:
(straight from manual)

5-4-7 $PNTS This is a private-sentence based on NMEA-0183. The data
contains date, time, latitude, longitude, moving speed, direction,
altitude plus a short message, group codes, and icon
numbers. The EJ-41U does not analyze this format but can re-structure it.

The data contains the following information:

* $PNTS Starts the $PNTS sentence
* version
* the registered information. [0]=normal geographical location data. This

```
  is the only data EJ-41U can re-structure. [s]=Initial position for the
  course setting [E]=ending position for the course setting [1]=the course
  data between initial and ending [P]=the check point registration
  [A]=check data when the automatic position transmission is set OFF
  [R]=check data when the course data or check point data is received.
* Dd/mm/yyyy/hh/mm/ss:  Date and time indication.
* Latitude in DMD followed by N or S
* Longitude in DMD followed by E or W
* Direction: Shown with the number 360 degrees divided by 64. 00 stands
  for true north, 16 for east.
* Speed in Km/h
* One of 15 characters [0] to [9], [A] to [E]. NTSMRK command determines
  this character when EJ-41U is used.
* A short message up to 20 bites. Use NTSMSG command to determine this
  message.
* A group code: 3 letters with a combination of [0] to [9], [A] to
  [Z]. Use NTSGRP command to determine.
* Status: [1] for usable information, [0] for non-usable information.
* *hh<CR><LF> the check-sum and end of PNTS sentence.

--
Joel Maslak
N7XUC


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```

15. [aprsspec] RFONLY/NOGATE alias support?

```
From: "Ev Tupis (W2EV)" <propnet@greeceny.com>
Date: Thu, 11 Jan 2001 07:01:16 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129158-2001.01.11-06.26.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

** This is not a note that is intended to startup a debate over
privacy **

===== Introduction =====
With the advent of the January VHF Sweepstakes this upcoming
weekend, there will be several Rover-class stations activating
their stations with UI-Packet on-board.  The purpose of which is
to announce their location (as a TX-only tracker) using
all-amateur means.

They will be *not* using 144.39 MHz (the reasons are many, all of
which have to do with assuring VHF Sweepstakes rules compliance).

I know that at least one APRS software title understands the
RFONLY alias as a request from the sending station to *not*
translate the posit to any other port (effectively keeping the
posit from being passed to the Internet [a non-Amateur means of
communication]).  As a result, non-roving stations are being
trained on the use of UI-View (thank-you, Roger!).

===== All of that for this simple question =====  :o)
Is there any other "APRS" software title that supports the RFONLY
alias?  If so, I'll also promote their use.

Ev, W2EV



---
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```

16. [aprsspec] Re: RFONLY/NOGATE alias support?

```
From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 11 Jan 2001 08:56:49 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129174-2001.01.11-08.09.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

On Thu, 11 Jan 2001, Ev Tupis (W2EV) wrote about VHF contest ROVERS using
RFONLY beacons:

> I know that at least one APRS software title understands the
> RFONLY alias as a request from the sending station to *not*
> translate the posit to any other port (effectively keeping the
> posit from being passed to the Internet [a non-Amateur means of
> communication]). As a result, non-roving stations are being
> trained on the use of UI-View (thank-you, Roger!).

I was not aware of this alias. So I doubt any of the APRS authors have
included it. (or I was asleep when it was discussed)... To my knowlege
all that discussion and blood we had about the issue resulted in only
filters on FINDU... no one (except apparently Roger) implemented any
RFONLY type filtering? Of course it wont help with hardware-only
TNC-TCPIP Igate feeds, but there are not many of them...

But the simplest way to insure something is RF only is to use 3rd party
format. ALL Igates to my knowledge will "assume" that a 3rd party packet
was an IGated packet and so will not re-inject it into APRServe...

APRSdos supports this under the command alt-SETUP-FORMATS-3rdparty

Or at least the above is what I remember...

bob

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17. [aprsspec] RE: RFONLY/NOGATE alias support?

From: Bill Diaz <billdiaz@megsinet.net>
Date: Thu, 11 Jan 2001 08:16:08 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129181-2001.01.11-08.29.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev,
  AFilter supports NOGATE.
IGATES using AFilter can reject packets that contain NOGATE in the header.

Bill KC9XG

On Thursday, January 11, 2001 6:01 AM, Ev Tupis (W2EV)
[SMTP:propnet@greeceny.com] wrote:
> ** This is not a note that is intended to startup a debate over
> privacy **

SNIP

> ===== All of that for this simple question ===== :o)
> Is there any other "APRS" software title that supports the RFONLY
> alias? If so, I'll also promote their use.
>
> Ev, W2EV

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18. [aprsspec] Re: RFONLY/NOGATE alias support?

From: Roger Barker <roger@peaksys.co.uk>
Date: Thu, 11 Jan 2001 14:40:07 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129186-2001.01.11-08.53.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-129174-2001.01.11-08.09.45--roger#peaksys.co.uk@lis
ts.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
>
>I was not aware of this alias. So I doubt any of the APRS authors have

>included it. (or I was asleep when it was discussed)... To my knowlege
>all that discussion and blood we had about the issue resulted in only
>filters on FINDU... no one (except apparently Roger) implemented any
>RFONLY type filtering? Of course it wont help with hardware-only
>TNC-TCPIP Igate feeds, but there are not many of them...

I implemented NOGATE and RFONLY by default, other "no gate" aliases can
be configured.

I put it in with a proviso that it wasn't a lot of use unless other
forms of IGATE used something similar. (Here in the UK it is some use,
because most of the IGATEs are running UI-View.)

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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19. [aprsspec] Re: RFONLY/NOGATE alias support?

From: "Ev Tupis (W2EV)" <propnet@greeceny.com>
Date: Fri, 12 Jan 2001 06:35:06 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129279-2001.01.12-05.47.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Refering to the RFONLY alias, Bob Bruninga wrote:
> I was not aware of this alias. So I doubt any of the APRS
> authors have included it.

RFONLY has been adopted as a BEACONet alias, and is part of the
growing BEACONet protocol specification (along with HOPn-N, and
the APRS-defunct [GG##gg] position designator). Since the common
thread that binds APRS(tm) and BEACONet(tm) is UI-Frame packet,
and software exists to decode APRS(tm)-spec frames, it is easy
for APRS authors to write-in BEACONet(tm) specific protocol
support.

I simply wanted to find out which authors have written-in a
specific feature that is important to Rover-category BEACONet(tm)
stations. With the hopes that most of the authors (and those
that are developing software on the sidelines) would be
subscribed to this list...I floated the question here. It was
one of those "thinking outside of the APRS(tm) box" questions.
That's all, nothing more.

Ev, W2EV

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20. [aprsspec] APRS question

From: kcechura@umr.edu
Date: Mon, 15 Jan 2001 22:49:11 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129708-2001.01.15-23.05.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

ok, im new to this list, i hope i joined the right one to ask this
question.... IS THERE A WAY TO INTERFACE A LOWRANCE GLOBALMAP 100 TO A KAM
AND A LAPTOP TO DO APRS? is there anyone who can help with this?

thanks
"Ken
          /==================================\
          |++++++++++++++++++++++++++++++++++|
          |+   Ken Cechura   + |+   Station
Manager, W0EEE   +|
          |++++++++++++++++++++++++++++++++++|
          |+ http://members.aol.com/kc9umr +|
          \==================================/

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21. [aprsspec] Accommodating APRS harvesters

From: "Johann Lochner" <lochner@ing.sun.ac.za>
Date: Tue, 16 Jan 2001 19:18:25 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Hans Grobler <grobh@sun.ac.za>
Message-ID: <LYR11589-129751-2001.01.16-11.31.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi folks,

APRS client applications consider the APRS Internet System's content
to be real-time. This restricts the contribution Sunsat and other
"APRS harvesters" (and indeed a future ASTARS constellation) can make
towards increasing the accessibility of the APRS network. I guess we
should start sharing ideas on how this restriction can be overcome.

It is proposed that a header, opened by the < character and closed by
the > character, be prepended to all delayed frames fed into the APRS
Internet System:

<dd_t20010116T151934Z_p7823.92S01161.48W_a685477_f145900k_mAFSK_b1200
_vPCSAT,SUNSAT-3,ZS1SUN-15_s1463_cVHF omni test>ZR1CBC-3>APRS,APRSAT:
!3355.66S/01851.97Eb

A two byte alpha-numeric frame identifier, that follows immediately
after the opening < character, allows for future extension. The dd
identifier, as shown in the above example, indicates that the frame
contains delayed data. [1]

Every field starts with an _ delimiter and an alpha-numeric field
identifier, to facilitate parsing. More fields can be added as needs
arise. Field ordering is not important. The following fields are
proposed, at this stage: [2]

_t Date and time the frame was harvested (always in UTC), presented
    in the the ISO 8601 Basic Format.

_p Position of the harvester, specified by its latitude, followed by
    its longitude, in the standard APRS formats.

_a Altitude, in meters, as given by the distance from the center of
    the earth or above some other standard reference point (still to
    be determined).

_f Frequency, in hertz, on which the frame was harvested. An exact
    format must be determined. Use of the k, M and G unit prefixes
    (as shown in the example) is preferred.

_m Modulation scheme used for the harvested frame. An exact format
    must be determined.

_b Bitrate, in bit/s, at which the frame was harvested. An exact
    format must be determined. Use of unit prefixes is preferred.

_v Path via which the frame enters the Internet. The first callsign
    identifies the harvester. Comma separated callsigns are appended
    as the frame progresses. The last callsign identifies the igate.

_c Text comment for use by the harvester. A length limit should be
    determined.

_s   Sequence number, assigned by harvester. Incremented by one for
    every frame harvested.

As soon as a standard is agreed upon and aprsd passes on such frames,
we will start injecting Sunsat's digilogs (around 600 frames per day,
at this stage) into the APRS Internet System.

73 de ZR1CBC, Johann

----
[1] A similar header, with a different frame identifier, can be used
    for future acknowledged ASTARS messaging.

[2] Only the _t and _v fields are required; the others are optional.

+---+
  JG Lochner ESL, Universiteit van Stellenbosch
  e-pos: lochner@ing.sun.ac.za
  webtuiste: http://esl.ee.sun.ac.za/~lochner
+---+

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22. [aprsspec] Message ids and all that...

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 20 Jan 2001 09:25:47 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-130396-2001.01.20-03.41.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(I've moved here rather than carry on the discussion in HTAPRS, so
anyone who hasn't read the "Problems w/New IGATE Service" thread in
HTAPRS might find it worthwhile to do so.)

Seeing as I appear to be out of step with most other authors, I guess
I'm going to have to change UI-View to ignore the sending callsign when
processing an ack. However, I think the spec is ambiguous in this area,
and I would suggest the following changes:-

1. It should be stated that the addressee field of a message need not be
a valid AX25 address. I know it doesn't say it should be, but, in the
context of packet radio, it's easy to associate a nine character address
with a valid AX25 address, and I would presume that is what was
originally intended.

2. It should be stated that the combination of originating callsign and
message identifier should be sufficient to uniquely identify a message
without reference to the addressee field.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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23. [aprsspec] RE: Message ids and all that...

From: Bill Diaz <billdiaz@megsinet.net>
Date: Sat, 20 Jan 2001 10:54:28 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-130465-2001.01.20-11.07.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Roger,

On Saturday, January 20, 2001 3:26 AM, Roger Barker [SMTP:roger@peaksys.co.uk]
wrote:
> (I've moved here rather than carry on the discussion in HTAPRS, so
> anyone who hasn't read the "Problems w/New IGATE Service" thread in
> HTAPRS might find it worthwhile to do so.)

> Seeing as I appear to be out of step with most other authors, I guess
> I'm going to have to change UI-View to ignore the sending callsign when
> processing an ack. However, I think the spec is ambiguous in this area,
> and I would suggest the following changes:-

> 1. It should be stated that the addressee field of a message need not be
> a valid AX25 address. I know it doesn't say it should be, but, in the
> context of packet radio, it's easy to associate a nine character address
> with a valid AX25 address, and I would presume that is what was
> originally intended.

APRS was designed to work with data obtained or orginated by a TNC that uses
the AX25 protocol. If a packet does not conform generally to the AX25
protocol, APRS applications should not be required to relay or display these
packets.

I feel that Origination, destination, vias, and addressee fields of messages
should be vaild AX25 addresses. This simplifies the processing of packets and
permits legacy applications to operate without change.

Bill KC9XG

> 2. It should be stated that the combination of originating callsign and
> message identifier should be sufficient to uniquely identify a message
> without reference to the addressee field.

> --
> Roger Barker, G4IDE - roger@peaksys.co.uk
> For UI-View go to - http://www.packetradio.org.uk
> For WinPack go to - http://www.peaksys.co.uk
>

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24. [aprsspec] RE: Message ids and all that...

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 20 Jan 2001 18:49:39 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-130478-2001.01.20-13.03.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-130465-2001.01.20-11.07.53--roger#peaksys.co.uk@lis
ts.tapr.org>, Bill Diaz <billdiaz@megsinet.net> writes
>Roger,
[snip]
>
>APRS was designed to work with data obtained or orginated by a TNC that uses
>the AX25 protocol. If a packet does not conform generally to the AX25
>protocol, APRS applications should not be required to relay or display these
>packets.
>
>I feel that Origination, destination, vias, and addressee fields of messages
>should be vaild AX25 addresses. This simplifies the processing of packets and
>permits legacy applications to operate without change.

I sympathise with your opinion, but the problem is that, as the spec
stands, it is ambiguous as to exactly how both the addressee field and
message numbers should be used. My suggested changes would bring the
spec into line with what other authors already appear to be doing (based
on the discussion in HTAPRS).

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
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25. [aprsspec] Source Callsigns and AX.25 [was:server connection loops]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Mon, 22 Jan 2001 11:40:01 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-130686-2001.01.22-05.53.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >aprsdCLE>APD214,TCPIP*::PE1OEZ   :K8UI Cleveland_OH snoopy.gwr.com
> >137.148.206.10 n8xos@ohioaprs.net aprsd 2.1.4
>
> And aren't source callsigns supposed to be AX25 compliant?

Correctly written software (OSI Level 5, 6 and 7) must (by convention)
abide by the rules as set forth by lower level protocols. Failure to do
so often causes an application to be a "poor neighbor" to other
connected systems (see the thread on "Unhandled Exception Errors" for
probable symptoms of what some systems may do when encountering
protocol-skirting

"aprsdCLE" appears in the source-address field of the frame cited
above. It appears to contradict the following AX.25 protocol
statements:

===== 2.2.13 Address-Field Encoding =====
The address field of all frames shall be encoded with both the
destination and source amateur call signs for the frame. Except for the
Secondary Station Identifier (SSID), the address field should be made up
of upper-case alpha and numeric ASCII characters only. If level 2
amateur "repeaters" are to be used, their call signs shall also be in
the address field.
======2.2.13.1 Figure 1==================
... The source address subfield is then sent in octets A8 through A14.
==

"aprsdCLE" uses lower case letters and is longer than 6 "ASCII" octets
(where the callsign goes) and uses a non-numeric value for octet 7
(where the SSID goes). [interestingly, I've found no mention that SSID
must be numeric...only that it is something other than uppercase Alpha
and numeric...maybe someone can clarify by citing the appropriate AX.25
convention?]

Unless I'm missing something, it seems that this ought to be brought to
the attention of the author of aprsd for correction. Of course, I'm
neither an author, nor considered an insider. My opinion and $0.99 will
get you a BigGulp at the corner mini market. :o)

Ev, W2EV

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26. [aprsspec] Re: [aprssig] Re: Source Callsigns and AX.25

From: Roger Barker <roger@peaksys.co.uk>
Date: Mon, 22 Jan 2001 20:58:57 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-130745-2001.01.22-15.11.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR1643-130734-2001.01.22-14.18.56--roger#peaksys.co.uk@list
s.tapr.org>, Bob Nielsen <nielsen@oz.net> writes
>Of course there are many other areas where the AX.25 specification is
>not rigorously adhered to. For example, the specifications also says
>that destination and repeater addresses, in addition to the source
>address are to be amateur callsigns plus SSID, which excludes such
>addresses as TRACE, WIDE, TCPIP, etc. I don't know if the APRS
>specification addresses this, but that might be an appropriate place to
>address this concern. Of course Net/Rom node addresses do not fit this
>model either. In fact, aliases are not mentioned at all in the AX.25
>specification.

The AX25 spec says that the address field consists of six characters,
plus SSID, and the characters should be upper-case alpha or numeric. The
address I highlighted wasn't an amateur radio callsign, but that's not a
problem - non-callsign aliases can still be legal AX25 addresses. The
problem was that it was eight characters, and some were lower case.

To pick up on PE1RDW's comment in another reply - I would think that the
structure of source addresses should be consistent, irrespective of
whether they originate on RF or on the internet. I can't find anything
in the spec that says otherwise, after all, frames created on the
internet masquerade as AX25 frames.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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27. [aprsspec] Re: [aprssig] Re: Source Callsigns and AX.25

From: Joel Maslak <jmaslak@antelope.net>
Date: Mon, 22 Jan 2001 21:18:33 +0000 (UTC)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>,
aprsspec@lists.tapr.org
Message-ID: <LYR11589-130748-2001.01.22-15.28.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 22 Jan 2001, PE1RDW (Andre) wrote:

<talking about invalid APRS callsigns>

> Remember that this frame will never be send over the air in this form.
> It isn't even a frame but just a ascii line so ax25 is not a real problem
> here, its just the question if an aprs program can use it and that seems
> no problem.

Not true! My internet-only callsign, LARAMIE, is being gated back into RF
by another IGate who gates all traffic he doesn't hear that is a certain
range from him.

So...weird callsigns COULD crash machines...

--
Joel Maslak
N7XUC

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28. [aprsspec] Re: [aprssig] Re: Source Callsigns and AX.25

From: "PE1RDW (Andre)" <aprs@pe1rdw.demon.nl>
Date: Mon, 22 Jan 2001 23:38:09 +0100 (CET)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>,
aprsspec@lists.tapr.org
Message-ID: <LYR11589-130751-2001.01.22-15.43.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 22 Jan 2001, Joel Maslak wrote:

> On Mon, 22 Jan 2001, PE1RDW (Andre) wrote:
>
> > Remember that this frame will never be send over the air in this form.
> > It isn't even a frame but just a ascii line so ax25 is not a real problem
> > here, its just the question if an aprs program can use it and that seems
> > no problem.
>
> Not true! My internet-only callsign, LARAMIE, is being gated back into RF
> by another IGate who gates all traffic he doesn't hear that is a certain
> range from him.
>

> So...weird callsigns COULD crash machines...
>
Please corect me if I'm mistaken but all the internet trafic gated to rf
is suppossed to be as a 3th party frame that would leave LARAMIE as ascii.
If any igate software does it any other way that software is to blame not
the originator.
> --
> Joel Maslak
> N7XUC
>

73 de Andre PE1RDW
aprsdigi co-ordinator Netherlands
member aprs workgroup netherlands
mailto:pe1rdw@aprsnl.org

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29. [aprsspec] Re: [aprssig] Re: Source Callsigns and AX.25

From: Joel Maslak <jmaslak@antelope.net>
Date: Mon, 22 Jan 2001 14:42:22 -0700 (MST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>,
aprsspec@lists.tapr.org
Message-ID: <LYR11589-130753-2001.01.22-15.52.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 22 Jan 2001, PE1RDW (Andre) wrote:

> Please corect me if I'm mistaken but all the internet trafic gated to rf
> is suppossed to be as a 3th party frame that would leave LARAMIE as ascii.
> If any igate software does it any other way that software is to blame not
> the originator.

This is correct and it is what the other igate is doing - properly.

However, my concern is what happens when a station tries to plot my
location on a map, assuming that the software plots the third party
position reports. If the author assumed that this followed the AX25 spec,
he will find that he allocated insufficiant space for this call. The
result will be overwritten memory, possibly causing a crash. My bet is
that a short one like LARAMIE won't overwrite much, and won't be noticed
by most people. But, I bet if someone stuck something
"THISISAVERYLONGINTERNETCALLANDIDONTCARE" as thier Internet call, it would
crash many bad implementations.

--
Joel Maslak
N7XUC

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

30. [aprsspec] ?IGATE?

From: Joel Maslak <jmaslak@antelope.net>
Date: Wed, 24 Jan 2001 03:00:32 +0000 (UTC)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-130955-2001.01.23-21.10.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I watched the Wyoming/Colorado network go to nearly 100% utilization in
response to a single packet - an IGATE query. You see, the query got
gated to the Internet and the responses got gated back to RF. I shut down
my igate as soon as I noticed this, as I would rather not provide this
service than trash the local RF LAN. Until I can patch aprsd, I'll stay
down, too, as I believe that is the only thing I can do that is in
compliance with the spirit of APRS. But, read on, for this isn't only an
IGATE query problem.

If you send an IGATE query when you are near an igate, thosands of igates
will flood your 1200 BPS RF LAN in response to your query, because not
only will the local igates respond, but also most igates on the web will
too!

Is there even a good reason to have an igate respond to an IGATE query
that was sent over the Internet? I understand that it might not be a bad
thing for it to respond if it gets the query over RF, as it helps network
planners see what is going on. But, does anyone really want hundreds of
machines sending a reply?

Unfortunately, this isn't limited to IGATES. It also affects any other
type of query for which thosands of machines could respond... Of course
the IGATE is most effective because most of the other things you query for
aren't directly connected to the internet.

Solutions?

LONG TERM:

1) Packets on the Internet that come from the RF stream should be marked
as coming from the RF stream. This way, remote sites can determine if it
should respond to a query received on the internet (it is okay to flood
the internet; it is not okay to flood the RF stream)

2) Igates should have a timeout feature, just like our repeaters do.
This prevents an unattended igate from really messing with the RF LAN. It

should function on a duty cycle basis - say one packet every 15 seconds or
something, possibly taking into account paths and such. IANAL, but I have
to think that the spirit of Part 97 requirs those of us running unattended
stations to make sure that our systems don't interfer with the functions
of a communications network.

3) The internet servers should automatically filter out broadcast queries
that didn't come from the authorized user's call sign. This will prevent
gated queries from being responded to by older software.

SHORT TERM:

1) ALL IGATES SHOULD BLOCK ALL BROADCAST QUERIES. There should be no
exceptions. I'll be writing a patch sometime this week for aprsd. I'll
be submitting it to the author and also posting it on the web with a URL
for anyone interested in setting up more friendly igate. aprsd isn't the
only software at fault, though, so I encourage APRS software authors to
look at their software, too.

2) DON'T USE AN IGATE (or any other query which more than 1 machine will
respond to) QUERY ON RF UNTIL YOU KNOW YOUR LOCAL RF LAN HAS ADDRESSED
THIS PROBLEM. This is unfortunate, I realize, but I believe this is the
only thing that can be done to keep the network sane.

--
Joel Maslak
N7XUC

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

31. [aprsspec] RE: ?IGATE?

From: Bill Diaz <billdiaz@megsinet.net>
Date: Tue, 23 Jan 2001 22:33:34 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-130963-2001.01.23-22.47.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Joel,

On Tuesday, January 23, 2001 9:01 PM, Joel Maslak [SMTP:jmaslak@antelope.net]
wrote:
>
> I watched the Wyoming/Colorado network go to nearly 100% utilization in
> response to a single packet - an IGATE query. You see, the query got
> gated to the Internet and the responses got gated back to RF. I shut down
> my igate as soon as I noticed this, as I would rather not provide this
> service than trash the local RF LAN. Until I can patch aprsd, I'll stay
> down, too, as I believe that is the only thing I can do that is in
> compliance with the spirit of APRS. But, read on, for this isn't only an
> IGATE query problem.

A week or more ago, a station up in Canada sent repeated IGATE queries one
right after another. Sure stressed the Internet feed.

> If you send an IGATE query when you are near an igate, thosands of igates
> will flood your 1200 BPS RF LAN in response to your query, because not
> only will the local igates respond, but also most igates on the web will
> too!

Snip

> Solutions?

> LONG TERM:

> 1) Packets on the Internet that come from the RF stream should be marked
> as coming from the RF stream. This way, remote sites can determine if it
> should respond to a query received on the internet (it is okay to flood
> the internet; it is not okay to flood the RF stream)

It is not okay to flood the Internet IMO. Several Servers have maxed out T1
lines, and have had to either limit service or find another site with higher
bandwidth. Many of the APRS servers are hosted free of charge by kind souls.
 We should not abuse this kindness.

Conservation of bandwidth should be practiced on both the Internet and RF.
 Elimination of excessive ?IGATE? queries is a start.

SNIP

> 3) The internet servers should automatically filter out broadcast queries
> that didn't come from the authorized user's call sign. This will prevent
> gated queries from being responded to by older software.

The servers should also filter out packets that are not APRS compliant. Many
non-compliant packets are gated to RF, along with packets that contain no
payload, defective headers, and assorted garbage packets.

Bill KC9XG

SNIP
> --
> Joel Maslak
> N7XUC
>

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32. [aprsspec] Dealing with Different Datums =>Geodetic Datum Overview

From: "Neil Johnson" <njohnson@interl.net>
Date: Thu, 25 Jan 2001 23:01:40 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-131252-2001.01.25-23.15.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I found this URL while researching the "Degree Confluence Project".

http://www.colorado.edu/geography/gcraft/notes/datum/datum_f.html

Near the bottom there is information on how to translate between different
map datums.

Could this info be incorporated into APRS programs to alleviate issues with
different MAP Datums We could modify the file format for map files to
include information about the datum it uses, then have the program translate
the GPS datum (usually WGS84) to the datum used by the map ?

Neil M. Johnson
njohnson@interl.net
http://www.interl.net/~njohnson
PGP Key Finger Print: 93C0 793F B66E A0C7 CEEA 3E92 6B99 2DCC

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

33. [aprsspec] Re: Dealing with Different Datums =>Geodetic Datum Overview

From: "Brent Hildebrand" <bhildebrand@earthlink.net>
Date: Thu, 25 Jan 2001 21:15:33 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-131258-2001.01.25-23.29.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The on-air Datum of APRS is WGS84.   APRS+SA has coordinate conversion capability to take coordinate
input in any of 100+ different map datums and convert to or from WGS84. It also can convert from
Lat/Long to UTM coordinates.

Brent Hildebrand, KH2Z

APRS+SA
http://www.tapr.org/~kh2z/aprsplus
ftp://ftp.tapr.org/aprssig/winstuff/aprsplus

[]

> I found this URL while researching the "Degree Confluence Project".
>
> http://www.colorado.edu/geography/gcraft/notes/datum/datum_f.html
>
> Near the bottom there is information on how to translate between different
> map datums.
>
> Could this info be incorporated into APRS programs to alleviate issues with
> different MAP Datums We could modify the file format for map files to
> include information about the datum it uses, then have the program translate
> the GPS datum (usually WGS84) to the datum used by the map ?
>
> Neil M. Johnson
> njohnson@interl.net
> http://www.interl.net/~njohnson
> PGP Key Finger Print: 93C0 793F B66E A0C7 CEEA 3E92 6B99 2DCC
>
>
>
> ---
> You are currently subscribed to aprsspec as: bhildebrand@earthlink.net
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

34. [aprsspec] Re: Dealing with Different Datums =>Geodetic Datum Overview

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 29 Jan 2001 09:53:11 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-131756-2001.01.29-12.07.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 25 Jan 2001, Neil Johnson wrote:

> I found this URL while researching the "Degree Confluence Project".
>
> http://www.colorado.edu/geography/gcraft/notes/datum/datum_f.html
>
> Near the bottom there is information on how to translate between different
> map datums.
>
> Could this info be incorporated into APRS programs to alleviate issues with
> different MAP Datums We could modify the file format for map files to
> include information about the datum it uses, then have the program translate
> the GPS datum (usually WGS84) to the datum used by the map ?

Yes! Xastir uses some limited datum translation capability of the
PROJ.4 library (libproj) to do this in order to display USGS topo
maps with the correct datum. In my county there's a 90 to 102 meter
shift between NAD27 and WGS84 depending on where you are in the
county.

If someone wants some GPL'ed example code in Perl that can translate
between 231 map datums, get the Coordinate.pm Perl module from my
site. It's easily translated to C. ftp://ftp.eskimo.com/u/a/archer

BTW: The DOS/Windows maps as used in Xastir are off by what appears
to be a datum shift. It looks like the original data was NOT in
WGS84 and the program that made the vector maps didn't do a datum
shift. It's a Mac program that makes them, right? Closed source?

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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February 2001

Original source file: aprsspec.0102
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0102

1. [aprsspec] ADMIN: Monthly Announcement

From: "Horzepa, Stan" <Stan_Horzepa@adc.com>
Date: Thu, 1 Feb 2001 15:42:18 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-132370-2001.02.01-15.56.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

PURPOSE

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. Do not send attachments.

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QUESTIONS, COMMENTS, ETC.

If you have any questions, comments, etc. concerning the APRS SPEC, please email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] Please help APRSHELP.COM

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sat, 03 Feb 2001 08:41:25 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-132664-2001.02.03-07.55.30--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Hi folks,
APRSHelp is just the ticket. The name is easy to remember, and
engenders the right emotion for visiting it. Unfortunately, information
is only as good as the source. It does a good job of hitting the
"intro" APRS software but contains not much on some of the other
Amateur-grown stuff that exists such as Xastir, Afilter, AfilterX,
PearlAPRS, UI-View, XAPRS, HamHUD and TinyTrak. (ie- what *is* Afilter
and how is it used?)

If you are an author of one or more of these products, would you please
forward the web page author some information about your product, so that
it may be included there, too?

No, I'm not the author...but you may hit the website to find them. (or
mailto:kc5jgv@arrl.net).

The potential for this website is great. Please support it with useful
information.

Ev Tupis, W2EV

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] APRServe WG

From: Bill Diaz <billdiaz@megsinet.net>
Date: Tue, 6 Feb 2001 19:06:38 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133452-2001.02.06-19.20.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The adhoc APRServe WG will be posting messages here.

Any interested parties on this SIG yet?

Bill KC9XG

 Display current vehicle location :
 http://www.findu.com/cgi-bin/find.cgi?KC9XG-14

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

4. [aprsspec] Re: APRServe WG

From: Bruno Quesnel <quesnelb@ve2.ele.etsmtl.ca>
Date: Tue, 06 Feb 2001 20:13:32 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133453-2001.02.06-19.28.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I got the message and still interested in the participation of the group.

Bill Diaz wrote:

> The adhoc APRServe WG will be posting messages here.
>
> Any interested parties on this SIG yet?
>
> Bill KC9XG
>
> Display current vehicle location :
> http://www.findu.com/cgi-bin/find.cgi?KC9XG-14
>
> ---
> You are currently subscribed to aprsspec as: quesnelb@ve2.ele.etsmtl.ca
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

--
Bruno Quesnel   va2bmg@videotron.ca
Genie Electrique   quesnelb@ve2.ele.etsmtl.ca

Electrical Engineering queb1604@ele.etsmtl.ca
Ecole de Technologie Superieure VA2 BMG

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] APRServe WG preliminary discussions.

From: Bill Diaz <billdiaz@megsinet.net>
Date: Tue, 6 Feb 2001 19:49:30 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133460-2001.02.06-20.03.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The primary purpose of the APRServe WG should be to improve the integrity of
APRS data provided to TCP/IP users. We should begin to discuss some the areas
that may require attention.

1. The linking of servers should provide a secure and reliable method of
ensuring that all servers obtain all APRS data in a timely manner.
The current APRServe network links must be documented. Steve Dimse has
indicated that much of this is available. It should be compiled into a single
document that can be used as a basis for producing the current network
specification. Grahpical representaion of the network topology should be
included. This can then be used to propose future enhancements to the existing
network.

2. The present APRS network bandwidth requirements should be analyzed.
Many of the sites and connectivity are provided to APRS at no cost. We should
attempt to limit the impact that our activities have at these sites.

3. The APRS bandwidth requirements and effects on local RF links should be
analyzed.
Local RF issues are local issues. The APRServe network should provide a highly
reliable feed to IGATES and accept data from verified users. Existing
verification procedures should be examined, documented, and new methods
proposed.

4. The proposed specification should incorporate provisions to permit the
exclusion of data that is not APRS compliant.
These provisions, if implemented by a server would eliminate any packets that
are not recognized as APRS compliant packets Servers would have the option of
performing limited cleanup of APRS packet headers to remove non-essential TNC
display formatting, rather than rejecting the packet outright. Further
provisions could be adopted to eliminate APRS packet that carry no information.
No conversion or changes to payload data would be performed on the APRS packet
payload information. Mic-E packets would not be converted.

Bill KC9XG
Display current vehicle location : http://www.findu.com/cgi-bin/find.cgi?K
C9XG-14

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Re: APRServe WG

From: Stan Horzepa <stanzepa@mail2.nai.net>
Date: Tue, 06 Feb 2001 21:11:03 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133466-2001.02.06-20.21.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

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specification?²) may be considered off-topic. If you start a message with
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QUESTIONS, COMMENTS, ETC.

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email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

On 2/6/01 8:06 PM, "Bill Diaz" <billdiaz@megsinet.net> wrote:

> The adhoc APRServe WG will be posting messages here.
>
> Any interested parties on this SIG yet?
>
> Bill KC9XG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Re: APRServe WG preliminary discussions.

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 7 Feb 2001 10:44:36 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133583-2001.02.07-09.58.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 6 Feb 2001, Bill Diaz wrote:

<snip>>
> Bill KC9XG

I agree with all youu wrote.

Bob

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] APRServe question

From: Bill Diaz <billdiaz@megsinet.net>
Date: Wed, 7 Feb 2001 10:37:19 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133594-2001.02.07-10.51.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

APRServe seems to be operating better today.

However, I noticed that a packet sent to first.aprs.net, and third.aprs.net
does not get echoed back to the sender. A packet sent to second.aprs.net gets
echoed back as expected.

Why the difference between servers?

Bill KC9XG

 Display current vehicle location :
 http://www.findu.com/cgi-bin/find.cgi?KC9XG-14

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

9. [aprsspec] Re: APRServe question

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 7 Feb 2001 11:53:20 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133602-2001.02.07-11.07.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/7/01 11:37 AM Bill Diaz (billdiaz@megsinet.net) wrote:

>However, I noticed that a packet sent to first.aprs.net, and third.aprs.net
>does not get echoed back to the sender. A packet sent to second.aprs.net
>gets
>echoed back as expected.
>
>Why the difference between servers?
>
The answer lies in the title of your question. Only second.aprs.net is
APRServe, a Macintosh program I wrote and the original hub. The other two
run aprsd. Technically the title should be "APRS Internet System
question".

aprsd does not echo sent data back to the originator, while APRServe
does. Personally I think it is better that the sender see their data
echoed, I don't recall the reason Dale chose not to...

Steve K4HG

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10. [aprsspec] RE: APRServe question

From: Bill Diaz <billdiaz@megsinet.net>
Date: Wed, 7 Feb 2001 11:01:35 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133663-2001.02.07-13.02.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve,

On Wednesday, February 07, 2001 10:53 AM, Steve Dimse [SMTP:k4hg@tapr.org]
wrote:
> On 2/7/01 11:37 AM Bill Diaz (billdiaz@megsinet.net) wrote:

> >However, I noticed that a packet sent to first.aprs.net, and third.aprs.net
> >does not get echoed back to the sender. A packet sent to second.aprs.net
> >gets echoed back as expected.
> >
> >Why the difference between servers?

> The answer lies in the title of your question. Only second.aprs.net is
> APRServe, a Macintosh program I wrote and the original hub. The other two
> run aprsd. Technically the title should be "APRS Internet System
> question".

> aprsd does not echo sent data back to the originator, while APRServe
> does. Personally I think it is better that the sender see their data
> echoed, I don't recall the reason Dale chose not to...

Ok, thanks. My expectation was that when connected to a server I would see all
data that the server was passing. This is something that needs to be looked
into. The echoing of sender packets confirms that the packet was indeed
accepted by the server.

Bill KC9XG

> Steve K4HG

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11. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 7 Feb 2001 15:37:33 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133680-2001.02.07-14.51.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/6/01 8:49 PM Bill Diaz (billdiaz@megsinet.net) wrote:

>1. The linking of servers should provide a secure and reliable method of
>ensuring that all servers obtain all APRS data in a timely manner.
>The current APRServe network links must be documented. Steve Dimse has
>indicated that much of this is available. It should be compiled into a
>single
>document that can be used as a basis for producing the current network
>specification. Grahpical representaion of the network topology should be
>included. This can then be used to propose future enhancements to the
>existing
>network.
>
Reality, or my ideal? The former is going to be impossible to document.
My idea of how it should be is three servers at the center, each
interlinked with the other two on port 1313, and every other user and
IGate connected to one of the three with a verified connections on port
23/10152 (most IGates and users not desiring buffer dumps on connect),
port 1314 (IGates desiring the smallest bandwidth, or 10151 (users
desiring buffer dump).

>2. The present APRS network bandwidth requirements should be analyzed.
>Many of the sites and connectivity are provided to APRS at no cost. We
>should
>attempt to limit the impact that our activities have at these sites.
>
At this time it is very manageable, running about 50k bytes/sec at all
the sites, about a third of a T1, and all except www.aprs.net have a
better connection than that.

>3. The APRS bandwidth requirements and effects on local RF links should be
>analyzed.
>Local RF issues are local issues.

I agree, so why is this analysis part of the IGate process? From the
beginning it has been the policy of the internet system not to impact
upon the local LANs. aprsd provides the possibility to negatively impact
the network if misconfigured, while APRServe doesn't give those sort of
options. That is a philosophical question that the new aprsd author will
need to decide. Personally, I was happy with my decision to hardcode the
potentially QRM causing parameters to prevent problems.

>The APRServe network should provide a

>highly
>reliable feed to IGATES and accept data from verified users. Existing
>verification procedures should be examined, documented, and new methods
>proposed.
>
This is a biggie. A decision has to be made whether to secure the stream
at all, and if so, some robust scheme needs to be developed and
implemented. Not a task for the skittish!

>4. The proposed specification should incorporate provisions to permit the
>exclusion of data that is not APRS compliant.

On this count I favor less rather than more. The only check APRServe
performs is that a line looks like a packet, roughly 3-9 chars followed
by a '>' followed eventually by a ':' and at least 6 chars of data, total
length less than 250 bytes. This eliminates much of the garbage without
being overly restrictive to changes.

>These provisions, if implemented by a server would eliminate any packets
>that
>are not recognized as APRS compliant packets.

The problem is that the spec is not static, any substantive change means
updating all IGates before the new format can be used. While ideally
people would update their software regularly, there are many users with
very old versions out there.

> Servers would have the
>option of
>performing limited cleanup of APRS packet headers to remove non-essential
>TNC
>display formatting, rather than rejecting the packet outright.

Something to consider...when I was maintaining the system, something I
would have killed for is an ID of the exact path a packet took through
the internet system. My eventual plan was to have each IGate strip off
any unused digis in the path, then add the callsign of the station which
sent it to them (rather than having each IGate add their own call),
providing traceability of the packet. With a strong verification system,
it would make it simple to track offenders.

Steve K4HG

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12. [aprsspec] RE: APRServe question

From: Bill Vodall <wa7nwp@yahoo.com>
Date: Wed, 7 Feb 2001 11:43:53 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133689-2001.02.07-15.29.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> > aprsd does not echo sent data back to the originator, while
> APRServe
> > does. Personally I think it is better that the sender see their
> data
> > echoed,

It's time to start playing with aprsD.   Echoing received data
(optionally) is near the top of the list.   Any other enhancement
requests?

Bill

_____
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13. [aprsspec] Re: APRServe WG preliminary discussions.

From: Bill Vodall <wa7nwp@yahoo.com>
Date: Wed, 7 Feb 2001 14:00:12 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133702-2001.02.07-16.14.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Stirring the pot a bit.

> My idea of how it should be is three servers at the center, each
> interlinked with the other two on port 1313,

Why only 3? Why not an unlimited number? 3 will be overloaded. It's
only a matter of time.

>and every other user and
> IGate connected to one of the three with a verified connections on
> port
> 23/10152 (most IGates and users not desiring buffer dumps on
> connect),

Port 23 is telnet. There are reasons (firewalls) to use it for a
server but it's something that should be discouraged.

>
> >4. The proposed specification should incorporate provisions to
> permit the exclusion of data that is not APRS compliant.
>
> On this count I favor less rather than more. The only check APRServe
> performs is that a line looks like a packet,

That's good. Maybe make a separate port for the non-spec packets.
Trash the real garbage. Pass packets that are close.

We also need a scheme for passing experimental packets under the
guise of APRS.

> Something to consider...when I was maintaining the system, something
> I
> would have killed for is an ID of the exact path a packet took
> through
> the internet system.

The originating TCP system could flag the packet with
something like NWPTCP-1* instead of the current TCPIP*

> My eventual plan was to have each IGate strip off
> any unused digis in the path, then add the callsign of the station
> which sent it to them

Another good idea.

Why don't we either use aprsspec or set up a new mailreflector
for discussing this. Make it an OPEN discussion OPEN to
everybody concerned. Build a spec from the consensus.

Bill

_____
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14. [aprsspec] APRSServe WG

From: "Brian D Heaton" <bdheaton@c4i2.com>
Date: Wed, 7 Feb 2001 22:06:37 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133704-2001.02.07-16.25.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'll run some data captures of the current servers this weekend from work.
Unless someone has additional suggestions I'll do the following:

1 - feed data capture - capture the actual information coming across the
server links (after passing through the daemon and as it crosses the wire)

2 - take packet traces (via tcpdump) of connect, disconnect, and data
injection

3 - take packet traces (via tcpdump) of the same actions via the various
client programs I've got available.

4 - dig through the APRSd source for the raw network I/O code to see if
there are any gotchas hiding.

I'm open to suggestions and will have just about everything except a Mac
available to test on.

            73/N5VFF

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15. [aprsspec] Re: APRServe WG preliminary discussions.

From: Joel Maslak <jmaslak@antelope.net>
Date: Wed, 7 Feb 2001 15:29:20 -0700 (MST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133707-2001.02.07-16.37.23--lyris.aprsspec#tapr.org@lists.tapr.org>
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I know people probably won't like these suggestions. They involve
updating software, using newer computers (I.E. less than 5 years old) as
key network nodes, and improving the network. That said, I'm going to
suggest it anyhow. ;)

I believe the concept that "everyone needs all the traffic" is not
beneficial for APRS - or any other high volume linking
network. Hopefully, the technology we develop here can be used on the
radio waves as well as the internet!

Why does my APRS client at home care if N7FOOBAR is talking to
KC7BARFOO? I might care about his position report, but probably not his
messages.

Granted, most of the APRServe backbone traffic is simple posits, but I
bring this up because of the damage the current system is doing to the RF
network. (I run an Igate, and think the damage is better than going
without the service, but I would prefer to operate in a slightly more
professional manner)

Reality tells me that more than one user will run an Igate in a small
area. True, we shouldn't do that with the current network, but it
happens. I'm surprised if I see less than three Igates gating messages
into my local LAN (and I only gate if I hear the person within one digi
hop - I may even turn all outgoing gating off). This can and should be
reduced.

What I propose has been done on almost every other packet network outside
of APRS. The Internet does it this way, as does IPX, and most commercial
packet switching networks. We might be able to learn from these.

Basicly, I propse ARIP. This would be similar to RIP on the Internet, but
with the modifications needed to work on APRS. This would also allow
messaging to work efficiently with more than one

The packet format on the IP network would be different than it is now. It
would consist of 16 (this should be enough for now) 32 bit numbers (yes,
this would increase the size of the packet - but bear with me - it will
decrease the loops and such greatly). Each of these numbers is an IP
address, which work like a "Received From:" header in an Internet mail
message. This will allow easy detection of loops, and also of too many
hops (any packet with all 16 slots "filled" gets discarded).

In addition, each packet contains a "secondary network hop count". This
would be the RF hop count, as best as could be determined. The

"total" hop count to the station could be easily determined by adding this
number with the number of IP addresses.

Of course, the APRS packet would also be included in this message.

When a NODE (not an end user) receives a packet, it would look at the
"total hop count" and see if the total hop count for that sender was less
than the total hop count a local "routing table" (which expires every 30
minutes or so). If it is, it updates the routing table with the IP of the
downstream destination - which we know is closer to the source station.

There would also be a special "Routing Information Packet" which says,
effectively, "the routes I had for stations X, Y, and Z are no longer
valid."

If a packet is found for which there is no known route, it would be sent
to all IGates.

This way, when a non-broadcast packet (messaging) is sent, a node could
look at the routing table, decide which station seems best, and send the
packet there. It would allow transparent backup functionality to the
network. If 10 people run igates, only one would get any particular
packet to gate back to RF. If someone lost their IP connection, that
route would be removed by the Routing Information Packet, and, shortly,
new routes would become established.

--
Joel Maslak
N7XUC

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16. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 7 Feb 2001 17:23:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133708-2001.02.07-16.37.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/7/01 5:00 PM Bill Vodall (wa7nwp@yahoo.com) wrote:

>> My idea of how it should be is three servers at the center, each
>> interlinked with the other two on port 1313,
>
>Why only 3? Why not an unlimited number?   3 will be overloaded. It's
>only a matter of time.
>
Three is a number adequate for the present level of traffic, and given
that all three are on connections greater than T-1, they can handle
roughly 6 times the present level of traffic.

If you are suggesting that everyone become a central server, this is
asking for trouble. First, the number of interconnections rises rapidly:

1 server 0
2 servers 2
3 servers 6
4 servers 12
5 servers 20

more generally (n-1)*n.

Next, as long as the software allows user-configurability, the governing
group must verify each server is correctly configured. Manageable with
three stable sites, very difficult with 100 or more.

Finally, each time a server is added, all the others must update their
interconnection lists, another administrative nightmare.

>>and every other user and
>> IGate connected to one of the three with a verified connections on
>> port
>> 23/10152 (most IGates and users not desiring buffer dumps on
>> connect),
>

>Port 23 is telnet. There are reasons (firewalls) to use it for a
>server but it's something that should be discouraged.
>
Well, discouraged is a relative term. Do you really want to cut off an
entire class of users? Many people at least work behind tight firewalls
that block non-standard ports like 10152. Port 23 is almost always open
to outgoing connections, allowing these people to participate in the
system.

What is the harm in this that it should be discouraged? At the central
sites, owners must move their telnet connections to another port, which
takes 10 seconds. None of the other users care what port telnet is on. A
nice side effect is that telnet, the most common hacking port, has a
little security through obscurity.
>>
>> >4. The proposed specification should incorporate provisions to
>> permit the exclusion of data that is not APRS compliant.
>>
>> On this count I favor less rather than more. The only check APRServe
>> performs is that a line looks like a packet,
>
>That's good.   Maybe make a separate port for the non-spec packets.
>Trash the real garbage. Pass packets that are close.
>
Close is a relative term. What do you mean? I generally oppose anything
more than what I described APRServe does.

>We also need a scheme for passing experimental packets under the
>guise of APRS.
>
There is one, look in the spec under "User-defined format".
>
>> Something to consider...when I was maintaining the system, something
>> I
>> would have killed for is an ID of the exact path a packet took
>> through
>> the internet system.
>
>The originating TCP system could flag the packet with
> something like NWPTCP-1* instead of the current TCPIP*
>
Well, it turns out that TCPIP* is important, it shows that the packet
came from a verified station. If you eliminate this, you must provide
another means to flag unvalidated packets (or eliminate validation
altogether).

>Why don't we either use aprsspec or set up a new mailreflector
>for discussing this. Make it an OPEN discussion OPEN to
>everybody concerned.

I thought were already are doing this.

> Build a spec from the consensus.
>
That's a lot harder than it sounds!

Steve K4HG

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17. [aprsspec] Re: APRServe WG preliminary discussions. (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 7 Feb 2001 17:51:28 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133713-2001.02.07-17.05.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/6/01 8:49 PM Bill Diaz (billdiaz@megsinet.net) wrote:

>1.... Grahpical representaion of the network topology should be
>included. This can then be used to propose future enhancements to the
>existing network.

Being a map oriented person, I always thought this would be fun to do. A
live NETWORK map drawn in real time showing geographically the links that
were currently operational. Glad to see it on your list...

Bob

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18. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 7 Feb 2001 17:46:55 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133714-2001.02.07-17.11.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/7/01 5:29 PM Joel Maslak (jmaslak@antelope.net) wrote:

>I believe the concept that "everyone needs all the traffic" is not
>beneficial for APRS - or any other high volume linking
>network.

I disagree strongly. The everyone-gets-everything paradigm is central to
APRS in general, not just the Internet portion, at is in large measure
responsible for its success.
>
>Why does my APRS client at home care if N7FOOBAR is talking to
>KC7BARFOO? I might care about his position report, but probably not his
>messages.
>
And yet the message page is the third most popular web page (after find
and weather) on findu.com, with 3000 views in the last week alone.
"Reading the mail" is a time-honored tradition in ham radio, and clearly
popular. While it is clear you don't like it, it is what has made the
internet backbone so very popular. It is important to leave room for what
other people enjoy in APRS as well as what

>Granted, most of the APRServe backbone traffic is simple posits, but I
>bring this up because of the damage the current system is doing to the RF
>network. (I run an Igate, and think the damage is better than going
>without the service, but I would prefer to operate in a slightly more
>professional manner)
>
Well, there is no reason that messages should get passed from the
internet to rf unless the recpient is "local" (generally 2 or less digi
hops), and the sender is not local. If you are seeing this traffic, then
it is due to a misconfigured or incorrectly coded IGate.

>Reality tells me that more than one user will run an Igate in a small
>area. True, we shouldn't do that with the current network, but it
>happens. I'm surprised if I see less than three Igates gating messages
>into my local LAN (and I only gate if I hear the person within one digi
>hop - I may even turn all outgoing gating off). This can and should be
>reduced.
>
This is a matter of local coordination. One of the ideas I had
considered, but tabled as too complex, was to have each IGate look for
other IGates and not transmit if they are not primary.

Instead, what was planned to eventually get implemented was for an IGate
to generate a random few second delay when it has a message to send, and
listen first. If the message is heard on RF within that time, it means
another IGate has sent it, and therefore the other IGate will not send
it. A special case of no-delay could be added for a "primary" IGate in
each area, but of course if you do it, there is one more parameter for
the operator to mis-configure ;-)

>What I propose has been done on almost every other packet network outside
>of APRS. The Internet does it this way, as does IPX, and most commercial
>packet switching networks. We might be able to learn from these.
>
>Basicly, I propse ARIP. This would be similar to RIP on the Internet, but
>with the modifications needed to work on APRS. This would also allow
>messaging to work efficiently with more than one
>
I want to think about this a little longer before I reply, comments to
follow in a separate email...

Steve K4HG

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19. [aprsspec] Re: APRServe WG preliminary discussions.

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 7 Feb 2001 17:57:07 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133715-2001.02.07-17.12.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 7 Feb 2001, Steve Dimse wrote:

> Something to consider...when I was maintaining the system, something I
> would have killed for is an ID of the exact path a packet took through
> the internet system. My eventual plan was to have each IGate strip off
> any unused digis in the path, then add the callsign of the station which
> sent it to them (rather than having each IGate add their own call),
> providing traceability of the packet.

Exactly. THis is what I had wanted so that we could use the PATH as the
loop filter, and trace agent. As it is, we use the 3rd party format
identifier which makes any other use of the 3rd party format unworkable
via an RF-INTERNET path. Just a thought to put on the "future" list.

Bob

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20. [aprsspec] Re: APRServe WG preliminary discussions.

From: "Brian D Heaton" <bdheaton@c4i2.com>
Date: Wed, 7 Feb 2001 22:59:08 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133717-2001.02.07-17.15.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Couple thoughts:

All opinions are my own and open for discussion --

1 - our first task is to document the current transport protocol
interactions as they exist today.

2 - in parallel (ahthough hopefully secondary for the folks working on #1)
we can examine various methods of crafting an APRSServe V2.0 (just made that
up) protocol suite. The protocol suite itself might just expand on the
interaction between servers and the interaction between servers and clients.
(I know that "server" and "client" can get a bit fuzzy, but its the closest
I can get)

    As part of this exercise we might think of the the server software as
consisting of several modules
(note: this is a refernce model)
- IP network transport - make sure we get the bits from A-B in a consistent
format
- Session control - some type of capability determination and
request/response mechanism for data
- Authentication - challenge/response and who is allowed to do what to whom.
- AX.25 inbound filtering - what do we send to IP
-AX.25 outbound filtering - what do we send from IP
- IP inbound filtering - what do we accept from connected machines (support
for machine/class level configs)
- IP outbound filtering - what do we send to connected machines (support for
machine/class level configs)
- stateful packet parsing engine - able to determine packet type and
possibly other data (hopefully most of the work is already in PerlAPRS)

I'm thinking about a session control protocol that would go something like
this:

Client/Server (or server/server) -
1. client initiates connection request to server
2. server checks IP rules to see if client is allowed to connect
3. client authenticates with server
4. client and server negotiate client's desired data vs. server capability
5. server and client exchange data according to #4
6. server or client can initiate graceful disconnect

4 - the heaviest detail will be involved in #4. I think we need to thrash
around a bit on what level we want to negotiate down to. Some
possibilities:
- only within X nm radius of point X
- only weather reports
- only messages (or no messages not addressed to stations not on this
connection)
- etc, etc, etc

Sounds like loads of fun to me!!!

73/N5VFF (actually M/N5VFF/P until I get a UK ticket)

----- Original Message -----
From: "Joel Maslak" <jmaslak@antelope.net>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Wednesday, February 07, 2001 10:29 PM
Subject: [aprsspec] Re: APRServe WG preliminary discussions.

>
> I know people probably won't like these suggestions. They involve
> updating software, using newer computers (I.E. less than 5 years old) as
> key network nodes, and improving the network. That said, I'm going to
> suggest it anyhow. ;)
>
> I believe the concept that "everyone needs all the traffic" is not
> beneficial for APRS - or any other high volume linking
> network. Hopefully, the technology we develop here can be used on the
> radio waves as well as the internet!

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21. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 7 Feb 2001 18:10:52 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133718-2001.02.07-17.25.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/7/01 5:57 PM Bob Bruninga (bruninga@usna.edu) wrote:

>Exactly. THis is what I had wanted so that we could use the PATH as the
>loop filter, and trace agent. As it is, we use the 3rd party format
>identifier which makes any other use of the 3rd party format unworkable
>via an RF-INTERNET path. Just a thought to put on the "future" list.
>
Loops are easy to prevent by proper configuration, I don't think we need
it for loop prevention, but regardless I do think it is a good idea.

Steve K4HG

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22. [aprsspec] Re: APRServe WG preliminary discussions.

From: Bill Vodall <wa7nwp@yahoo.com>
Date: Wed, 7 Feb 2001 15:19:37 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133723-2001.02.07-17.34.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> If you are suggesting that everyone become a central server, this is
> asking for trouble. First, the number of interconnections rises
> rapidly:
>
> 4 servers 12
> 5 servers 20
>
> more generally (n-1)*n.

If each hub connected to two or three other hub's, everybody
would get everything. Why should all the hubs have to connect
to all the other hubs? Make it a true mesh network. It would be
possible for areas to "break off". That would have to be considered.

> Well, discouraged is a relative term. Port 23 is almost always
> open

> What is the harm in this that it should be discouraged?

No real harm beyond the fact that it makes the hubs non-standard.
Does hub 2 also support 10151 in parallel with 23? The more
consistency there is between systems, the better!

> Close is a relative term. What do you mean? I generally oppose
> anything more than what I described APRServe does.

Close is what you described.

> Well, it turns out that TCPIP* is important, it shows that the packet
> came from a verified station. If you eliminate this, you must provide
> another means to flag unvalidated packets

Of course. Wouldn't a scheme that provides both validation info AND
identify the originating IGate be a good thing?

>
> >Why don't we either use aprsspec or set up a new mailreflector
> >for discussing this. Make it an OPEN discussion OPEN to
> >everybody concerned.
>
> I thought were already are doing this.

There is talk of a new committee.

> > Build a spec from the consensus.
> >
> That's a lot harder than it sounds!

For sure.

Bill

_____
Do You Yahoo!?
Yahoo! Auctions - Buy the things you want at great prices.
http://auctions.yahoo.com/

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23. [aprsspec] Re: APRServe WG

From: "Jeff King" <jeff@aerodata.net>
Date: Wed, 7 Feb 2001 17:43:50
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133733-2001.02.07-17.57.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 02/06/01, "Bill Diaz <billdiaz@megsinet.net>" wrote:
> The adhoc APRServe WG will be posting messages here.
>
> Any interested parties on this SIG yet?

I'm here now, but had long ago unsubscribed from this list.
As this got started on APRSSIG, I'd recommend you post that

the discussion has moved here as I see no reference to it
on APRSSIG.

Personally, I'd rather see a independant list focused on the
task at hand but whatever works. This is, or was, the TAPR
sponsored WG "peanut gallery" list, and until we know its status,
mixing the groups might confuse the issue. I'd most certainly
ask their permission to host here if your going to stay.

Of course, the new list should be open access and not private
like the previous TAPR WG list was.

-Jeff

>
> Bill KC9XG
>
> Display current vehicle location :
> http://www.findu.com/cgi-bin/find.cgi?KC9XG-14

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24. [aprsspec] RE: Open Discussion

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Wed, 7 Feb 2001 18:49:10 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133735-2001.02.07-18.02.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff said....

snip

> Of course, the new list should be open access and not private
> like the previous TAPR WG list was.
>
> -Jeff
>
        AMEN !!!!!!!!!!!!!!!!!!!!

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25. [aprsspec] non-offical Draft paper outline

From: Jeff King <jeff@aerodata.net>
Date: Wed, 07 Feb 2001 18:49:47 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133737-2001.02.07-18.05.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just wrote down some things I'd like to see in a draft
outline. I am sure I missed some things. Please add what is
missing.

Thanks

Jeff

We really have three tasks here.

1. Document what exists so someone can develop applications for it.
2. Document need ommisions and fixes (to both server and clients) (*)
3. Document extensions (**)

Don't forget we do need to get on paper what exists as well

as what needs to be fixed and what needs to be extended. Here is my
view on it:

OVERVIEW of APRSERVE network   (use Steve's papers)

BASIC STUFF

Connecting to the server   (basic port numbers)
Decoding posits (reference to APRS protocol document?)
Client verfication (source code snippet)
Enter posits

MESSAGING

Overview (use Steve's paper)
Sending messages (APRS protocol document?)
Recieving messages
Internal server communication (port numbers ect)
        Message passing
**Extensions to messaging
        RF message gateway selection
        Least hop routing
        Least power routing

FILTERING

Message Dup's (source code snippet or structure description)
*Non-complient packet filtering
**Geo-Filtering
        By feed
        By client (might be OK on smaller FAST servers)

CLIENTS

Connection to the server, rules
Messaging rules
        I see you, you see me, (flood broadcast)
        **Who are my RF neighbors
        **What are their RF footprints
        **List of stations nearby (lat/lon)
        **Least power routing
        **Server selection of gateway message station
Client gateway rules
        *Only gateway APRS complient packets
        *No protocol conversions done on gatewayed packets
        *No math conversions done on any gatewayed frames

Future extensions/fixes (framework for developers, not set in stone)
        Go over justifications for extensions and food for thought.

Anyways, that is my laymans view of it.

-Jeff

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26. [aprsspec] Re: APRServe WG preliminary discussions.

From: "Jeff King" <jeff@aerodata.net>
Date: Wed, 7 Feb 2001 18:15:8
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133742-2001.02.07-18.29.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Catching up on old mail...

On 02/07/01, "Bill Vodall <wa7nwp@yahoo.com>" wrote:
> Stirring the pot a bit.
>
> > My idea of how it should be is three servers at the center, each
> > interlinked with the other two on port 1313,
>
> Why only 3? Why not an unlimited number?   3 will be overloaded. It's
> only a matter of time.

Agree. While I'd question to infinity, 3 clearly is to small of a number,

even for just the U.S. let alone the world. If the number is going to be
staticly fixed, then you want to make sure you have one directly
downstream
of each network hub (Chicago, Washington and San Jose). Then of course
other continents/counties should have them near their major switch sites.

> >and every other user and
> > IGate connected to one of the three with a verified connections on
> > port
> > 23/10152 (most IGates and users not desiring buffer dumps on
> > connect),
>
> Port 23 is telnet. There are reasons (firewalls) to use it for a
> server but it's something that should be discouraged.

Agree 100%. I believe the ITEF (that right?) assigns port numbers and
while we may not need a specific assignment, we shouldn't co-op other
adopted port numbers. I think anything above 1023 is fair game with
some exceptions.

-Jeff

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27. [aprsspec] Re: APRServe WG preliminary discussions.

From: "Jeff King" <jeff@aerodata.net>
Date: Wed, 7 Feb 2001 18:23:33
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133753-2001.02.07-18.37.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 02/07/01, ""Brian D Heaton" <bdheaton@c4i2.com>" wrote:

> 1 - our first task is to document the current transport protocol
> interactions as they exist today.

Yes, agree 100%. Trying to find all the documentation as it exists now
is tedious at best. Should be a document that 90% of experinced developers
can use to develop a application with no questions asked. The system is
actually fairly simply.... this task will be alot easier then the over
the air spec.... but locating all the info can be challeging.

> 2 - in parallel (ahthough hopefully secondary for the folks working on #1)
> we can examine various methods of crafting an APRSServe V2.0 (just made that
> up) protocol suite.

Also agree 100% here. Bill Diaz through his hard work has found a number
of
"warts" in the system. As we document I'm sure we will find more. The
APRSSERVE system, unlike the client base, is fairly
small in numbers. Hence getting everyone to update will be far easier and
we have no need for a legacy mindset. So why put it off?

-Jeff

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28. [aprsspec] Re: APRServe WG preliminary discussions.

From: "Jeff King" <jeff@aerodata.net>
Date: Wed, 7 Feb 2001 18:28:31
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133759-2001.02.07-18.42.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 02/07/01, "Bill Vodall <wa7nwp@yahoo.com>" wrote:

> > 5 servers 20
> >
> > more generally (n-1)*n.
>

> If each hub connected to two or three other hub's, everybody
> would get everything. Why should all the hubs have to connect
> to all the other hubs? Make it a true mesh network. It would be
> possible for areas to "break off". That would have to be considered.

Isn't that how the NOS convers servers do it? I know at one time they had
a nice map made up of the entire convers server network... I'll need to
see if I can find the link to it.... I think the fellow doing MFNOS was
behind it.

-Jeff

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29. [aprsspec] Re: APRServe WG preliminary discussions.

From: kbrown@powerhouseproductions.com (Kevin Brown)
Date: Wed, 7 Feb 2001 18:44:53 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133766-2001.02.07-18.57.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

: > > My idea of how it should be is three servers at the center, each
: > > interlinked with the other two on port 1313,
: >
: > Why only 3? Why not an unlimited number? 3 will be overloaded. It's
: > only a matter of time.

3 centralized servers (or some other magic number) could very well be
appropriate with some caveats.

1) No client connections.
2) Load-sharing/balancing. ergo: nearest server routing. Basically a
hierarchy to distribute outbound traffic. These server should learn
something from an IP routing protocol whereas they only send data to
"registered neighbors" who have connectivity via a qualified path to the
source and/or destination station. This WILL reduce load network wide.
3) Lets NOT forget about the bigger portion of the network: RF similar
features for dissemination of data between nodes needs to be created.

: Agree 100%. I believe the ITEF (that right?) assigns port numbers and

Yes. Without going into ad-nauseum detail, it would be difficult to obtain
a "well known port" assignment unless we subject ourselves to writing a IETF
draft/RFC-like document.

: while we may not need a specific assignment, we shouldn't co-op other
: adopted port numbers. I think anything above 1023 is fair game with
: some exceptions.

Well known ports, both UDP and TCP are assigned through 1023. You are
correct that anything beyond those ports is fair game up to 16,535 (could be
wrong on max...rusty).

Further, I really think the widen-n routing scheme was a great start in the
right direction. There is no reason why the network couldn't have a bit
more intelligence to determine nearest neighbors. It will always be a
"broadcast" packet by nature of radio. But if this intelligence is coupled
with some sort of compliance checking algorythms to determine that a
neighbor is truly APRSSpec compliant can't hurt.

How many times have each of you found someone who just loaded any of the
APRS software programs, and configured themselves as a WIDE and as such,
reduced the overall coverage of your local network? It's happened around
here before. Until someone NOTICES that someone is being a WIDE with 5 watts
at 20 feet, it can be strange.

Finally, I know many of you have seen my posts with regards to the spec. I
want to go on record however saying that I firmly enjoy the capabilities of
APRS, and am willing to step up to the plate to help whenever possible. That
being said though...an ounce of paranoia isn't a bad thing. There are
people out there, and yes even in the amateur community that can/will take
advantage of other folks hard work. I didn't want any work on the APRS spec
to suffer any such fate.

For the record... I'm a data networking engineer, and would like to try to

apply some of the rulesets of making wireline networks more robust to the
APRS spec.

:
: -Jeff
:
: ---
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:

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30. [aprsspec] Re: APRServe WG preliminary discussions

From: Jeff King <jeff@aerodata.net>
Date: Wed, 07 Feb 2001 19:45:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133767-2001.02.07-19.02.07--lyris.aprsspec#tapr.org@lists.tapr.org>
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All caught up...

On 02/07/01, "Joel Maslak <jmaslak@antelope.net>" wrote:
> I know people probably won't like these suggestions. They involve
> updating software, using newer computers (I.E. less than 5 years old) as
> key network nodes, and improving the network. That said, I'm going to
> suggest it anyhow. ;)

I've heard these same arguments applied to the end users. They
are even more specious when applied to server sysops. You would be hard
pressed to do much of anything on the internet with software/hardware
that was older then 3 years let alone 5.

Or look at it another way, what does that 5 year old computer hardware
cost? $200 at a used computer store? If a guy can't afford that, he
certainly can't afford the internet bandwidth to be able to function
as a server. If you want to run with the big dogs, it costs money.

73

Jeff

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31. [aprsspec] Verification

From: "Neil Johnson" <njohnson@interl.net>
Date: Wed, 7 Feb 2001 19:23:10 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133770-2001.02.07-19.37.16--lyris.aprsspec#tapr.org@lists.tapr.org>
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I have an idea for verification: use public key cryptography (on the
Internet side only of course).

The RSA public key encryption algorithm is now in the public domain so:

0. APRS Verifier creates a permanent public/private key pair.
1. Each APRS User generates a public/private key pair.
2. Each APRS User submits public key, call sign, and maybe some dough (a
couple of bucks, maybe via PayPal, to show they are serious or compensate
the APRS verifier for bandwidth, server h/w, support) to the APRS Verifier's
website.
3. APRS Verifier checks the APRS User's info. If it is up to snuff, signs
the APRS User's key with it's private key, and sends a "pick-up-number" to
the APRS User.
4. APRS User uses pick-up number to retrieve signed-public key from APRS
Verifier's web site.

To be verified.
1. APRS User connects to an APRS Server.
2. APRS Server sends a "challenge" to the APRS User
3. APRS User signs "challenge" with private key, sends signed challenged and
verified signed public key back to the APRS Server.
4. APRS Server decodes "challenge" with APRS User's public key , proving it
came from that user. Checks APRS Verifier's signature with the APRS
Verifier's public key, proving that APRS User has been verified.

(I think there is a better way to do this, but my copy of "Applied
Cryptography" is not at hand).

Advantages:
   - Prevents Spoofing
   - Can have several APRS Verifiers

Disadvantages:
  - Adding Cryptography to existing APRS clients could be difficult
(although public available crypto libraries are available for most
languages/platforms).

(sound feasible ?)

Neil M. Johnson
njohnson@interl.net
http://www.interl.net/~njohnson
PGP Key Finger Print: 93C0 793F B66E A0C7 CEEA 3E92 6B99 2DCC

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32. [aprsspec] Re: Re: APRServe WG preliminary discussions.

From: K3for@aol.com
Date: Wed, 7 Feb 2001 20:58:41 EST
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-133776-2001.02.07-20.14.08--lyris.aprsspec#tapr.org@lists.tapr.org>
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A lot have folks have *talked* about what they would do. Some have even
analyzed some of the problems. But before I judge the current system, it
would only be fair to draft a new "spec", write a different client side,
write a new server side, invest in the hardware, find someone to help with
the T1 backbone, host a site for folks to download the install and help
documentation (and registration) -assuming they meet the min h/w req'ts, and
monitor and debug it for a while.

As mentioned, it's more user errors than system weakness.

What we've built to now doesn't seem so bad then, and look at the effort it
took!

Thanks! Most of military projects don't turn out so well.

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33. [aprsspec] Re: APRServe WG preliminary discussions.

From: Jeff King <jeff@aerodata.net>
Date: Wed, 07 Feb 2001 22:39:33 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133787-2001.02.07-21.57.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff King wrote:

> I know at one time they had
> a nice map made up of the entire convers server network... I'll need to
> see if I can find the link to it....

Here it is:

ftp://ftp.intac.com/pub/hamradio/tcpip/mfnos/spamnet/spamnet.map

---
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34. [aprsspec] Focus

From: Bill Diaz <billdiaz@megsinet.net>
Date: Wed, 7 Feb 2001 22:33:53 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133796-2001.02.07-22.48.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Our first priority should be documenting the existing network and how it
presently operates. Steve has provided much of the needed information and
insight into the many of the design decisions. Others have supplied much
useful information.

We need a volunteer to compile information provided by Steve into a single
document. Who is willing to accept this responsibility?

The network improvment postings have covered quite a bit of ground.
Suggestions for network improvements seem to fall into 2 general categories.
1. Improvements to the existing network.
2. New network design.

IMO, initial improvements should be limited to those that would preserve the
ability of existing client applications to function without change. A second
phase could focus on improvements that provide additional services that may
require changes to existing client applications.

Perhaps we could start a new thread that would focus on proposals for the next
generation network? Of course, a new network design would require that APRS
application developers agree to make changes to take advantage of the design.

Bill KC9XG

Display current vehicle location :
http://www.findu.com/cgi-bin/find.cgi?KC9XG-14

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35. [aprsspec] Re: APRServe WG preliminary discussions.

From: Jon Anhold <jon@snoopy.net>
Date: Thu, 8 Feb 2001 01:59:19 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133831-2001.02.08-01.13.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Previously, Bill Vodall (wa7nwp@yahoo.com) wrote:
> Port 23 is telnet. There are reasons (firewalls) to use it for a
> server but it's something that should be discouraged.

Using port 23 is, in my opinion, a horrible idea. The only reason it's
running on third.aprs.net is so I'm conforming with first & second, and
even then it's a redir to 10152. There's no way I'm going to allow aprsd to
run as root just so it can bind to a priviledged port we shouldn't be using
in the first place.

-j

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36. [aprsspec] list

From: Jon Anhold <jon@snoopy.net>
Date: Thu, 8 Feb 2001 02:08:21 -0500

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133832-2001.02.08-01.22.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Personally, I think we should have our own list for this discussion.

To that end, I've created one. I'll leave it up to you all to decide if we
use it, but you may join by visting this URL:

        http://www.ohioaprs.net/mailman/listinfo/aprserve-wg

The list is open to anyone.

-j

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37. [aprsspec] Re: list

From: Jon Anhold <jon@snoopy.net>
Date: Thu, 8 Feb 2001 02:39:26 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133834-2001.02.08-01.53.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Just for kicks, I've also created an APRS WikiWikiWeb, which might be
useful for documentation, or it might not.

You can check it out at:

        http://www.ohioaprs.net/wiki/

-j

Previously, Jon Anhold (jon@snoopy.net) wrote:
> Personally, I think we should have our own list for this discussion.
>
> To that end, I've created one. I'll leave it up to you all to decide if we
> use it, but you may join by visting this URL:
>
>   http://www.ohioaprs.net/mailman/listinfo/aprserve-wg
>
> The list is open to anyone.

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38. [aprsspec] Re: list

From: Roger Barker <roger@peaksys.co.uk>
Date: Thu, 8 Feb 2001 08:50:38 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133835-2001.02.08-03.03.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-133832-2001.02.08-01.22.31--roger#peaksys.co.uk@lis
ts.tapr.org>, Jon Anhold <jon@snoopy.net> writes
>Personally, I think we should have our own list for this discussion.
>
>To that end, I've created one. I'll leave it up to you all to decide if we
>use it, but you may join by visting this URL:
>
>   http://www.ohioaprs.net/mailman/listinfo/aprserve-wg

Given that this list is called APRSSPEC, and the discussion is about an
APRS SPECification, I would have thought that it was an absolutely ideal
place to discuss it.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

39. [aprsspec] Re: list

From: Jon Anhold <jon@snoopy.net>
Date: Thu, 8 Feb 2001 04:17:44 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133837-2001.02.08-03.31.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As I said, I'll leave it up to you all. I thought this list was for "the"
APRS Spec, and perhaps a forum dedicated to the APRServe topic
would be appropriate.

-j

Previously, Roger Barker (roger@peaksys.co.uk) wrote:
> In article <LYR13460-133832-2001.02.08-01.22.31--roger#peaksys.co.uk@lis
> ts.tapr.org>, Jon Anhold <jon@snoopy.net> writes
> >Personally, I think we should have our own list for this discussion.
> >
> >To that end, I've created one. I'll leave it up to you all to decide if we
> >use it, but you may join by visting this URL:
> >
> >   http://www.ohioaprs.net/mailman/listinfo/aprserve-wg
>
> Given that this list is called APRSSPEC, and the discussion is about an
> APRS SPECification, I would have thought that it was an absolutely ideal
> place to discuss it.

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40. [aprsspec] Re: list

From: Roger Barker <roger@peaksys.co.uk>
Date: Thu, 8 Feb 2001 10:03:48 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133845-2001.02.08-04.16.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <20010208041559.H20136@snoopy.net>, Jon Anhold
<jon@snoopy.net> writes
>My understanding was that we are not discussing the APRS Specification, but
>the APRServe network and related topics.
>
>Am I mistaken?

Well, I thought the discussion was about a proposed specification for
the APRS internet server network, which I would class as an APRS
specification. But perhaps this list was only supposed to be for THE
APRS spec?

[snip previous comments]

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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41. [aprsspec] Re: list

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 8 Feb 2001 08:01:29 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133864-2001.02.08-07.15.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/8/01 3:50 AM Roger Barker (roger@peaksys.co.uk) wrote:

>Given that this list is called APRSSPEC, and the discussion is about an
>APRS SPECification, I would have thought that it was an absolutely ideal
>place to discuss it.

>
I agree, I will not be moving to any other list...

Steve K4HG

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42. [aprsspec] RE: Verification

From: Bill Diaz <billdiaz@megsinet.net>
Date: Thu, 8 Feb 2001 06:56:27 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133867-2001.02.08-07.31.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Neil,
  Your proposal should be considered for the next generation network. Perhaps this dicussion and items related to the next generation network could be contained in threads dedicated to this purpose.

Would be beneficial if we could use subjects that indicate if our posts relate to improving the existing network or a new network.

Subjects similar to:
 RE:[aprsspec] New or RE:[aprsspec] Improve
Could be used to permit SIGGERS to view the posts that may be of interest to them.

Bill KC9XG

On Wednesday, February 07, 2001 7:23 PM, Neil Johnson
[SMTP:njohnson@interl.net] wrote:
> I have an idea for verification: use public key cryptography (on the
> Internet side only of course).
>
> The RSA public key encryption algorithm is now in the public domain so:

SNIP
>

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43. [aprsspec] Re: APRServe WG preliminary discussions.

From: Bill Diaz <billdiaz@megsinet.net>
Date: Thu, 8 Feb 2001 06:45:11 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133866-2001.02.08-07.31.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Kevin,

On Wednesday, February 07, 2001 6:45 PM, Kevin Brown
[SMTP:kbrown@powerhouseproductions.com] wrote:
> : > > My idea of how it should be is three servers at the center, each
> : > > interlinked with the other two on port 1313,
> : >
> : > Why only 3? Why not an unlimited number?   3 will be overloaded. It's
> : > only a matter of time.

> 3 centralized servers (or some other magic number) could very well be
> appropriate with some caveats.

> 1) No client connections.

Regional servers or hubs could be employed to provide end-user connections. This is presently done to a limited extent but should be expanded. Initially, this could be implemented without changes to the existing network.

> 2) Load-sharing/balancing. ergo: nearest server routing. Basically a
> hierarchy to distribute outbound traffic. These server should learn
> something from an IP routing protocol whereas they only send data to
> "registered neighbors" who have connectivity via a qualified path to the
> source and/or destination station. This WILL reduce load network wide.

IMO, this would be appropriate to consider for the next generation of network.

SNIP

Bill KC9XG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

44. [aprsspec] Re: list

From: John Ackermann <jra@febo.com>
Date: Thu, 08 Feb 2001 08:26:37 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133869-2001.02.08-07.40.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The aprsspec list is a perfectly appropriate place for this discussion,
at least at this stage of the game. You're welcome to keep using it.

73,
John N8UR
jra@febo.com -- n8ur@tapr.org

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45. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 8 Feb 2001 08:26:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133870-2001.02.08-07.41.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/7/01 7:44 PM Kevin Brown (kbrown@powerhouseproductions.com) wrote:

>1) No client connections.

Doesn't that defeat the whole purpose of setting the system up?

>2) Load-sharing/balancing. ergo: nearest server routing. Basically a
>hierarchy to distribute outbound traffic. These server should learn
>something from an IP routing protocol whereas they only send data to
>"registered neighbors" who have connectivity via a qualified path to the
>source and/or destination station. This WILL reduce load network wide.

Let me explain again about the network load. Two servers on T1 lines were
close to maxing out. Now there are three on much fatter pipes. To say
that the load could grow six time present without strain is being
conservative. Will there be a six-fold increase? Maybe someday, but it is
years and years away. Sure, we could put in 1000 servers now, and cover
the day when every human on the planet will be on APRS, but that seems a
bit of overkill. It took more than 4 years for the system to outgrow the
original 2 servers on T1, during the most explosive growth of APRS (which
has tapered off significantly), I expect the three server system to
continue for a similar period of time. I think looking 4 years down the
pike is more than adequate in this case...

>3) Lets NOT forget about the bigger portion of the network: RF similar
>features for dissemination of data between nodes needs to be created.
>
OK, if by this you mean selective routing on TCP, I disagree strongly.
APRS exists on a one-to-many paradigm, the internet is the ultimate
expression of that, with one-to-all. For those that don't want it all,
there is Bill's excellent AFilter and AServer, but most people want to
see everything, the volume is not yet overwhelming even to a modem
connection, people's pipes are getting fatter much faster than the stream
is growing, I really don't see the need...

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

46. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 8 Feb 2001 08:27:51 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133871-2001.02.08-07.42.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/7/01 6:15 PM Jeff King (jeff@aerodata.net) wrote:

>Agree. While I'd question to infinity, 3 clearly is to small of a number,
>even for just the U.S. let alone the world.

On what basis do you claim that three is "to small a number"?

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

47. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 8 Feb 2001 08:40:22 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133875-2001.02.08-07.54.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/7/01 6:19 PM Bill Vodall (wa7nwp@yahoo.com) wrote:

>If each hub connected to two or three other hub's, everybody
>would get everything.   Why should all the hubs have to connect
>to all the other hubs? Make it a true mesh network. It would be
>possible for areas to "break off".   That would have to be considered.
>
That's exactly the reason it is best to have all the servers conenct to
each other. Otherwise it is necessary to develop some way of making sure
each packet is completely distributed within the network.

If you have some other arrangement, then a physical loop is possible. In
this case, you must now develop an alternative method of preventing
looping. You become dependent of every programmer developing code that
exactly matches the protocol. An error could bring down the entire
network. I think the present arrangement is better, where it is not
physically possible to create a loop (except by misconfiguration, and
again I'd like to see that prevented by aprsd the way it is by APRServe).

>> Well, discouraged is a relative term. Port 23 is almost always
>> open
>
>> What is the harm in this that it should be discouraged?
>
>No real harm beyond the fact that it makes the hubs non-standard.
>Does hub 2 also support 10151 in parallel with 23?   The more
>consistency there is between systems, the better!
>
No, APRServe (and first.aprs.net for that matter) do not support the dual
ports.

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

48. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 8 Feb 2001 08:45:48 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133876-2001.02.08-07.59.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/8/01 7:45 AM Bill Diaz (billdiaz@megsinet.net) wrote:

>> 3 centralized servers (or some other magic number) could very well be

>> appropriate with some caveats.
>
>> 1) No client connections.
>
>Regional servers or hubs could be employed to provide end-user connections.
>This is presently done to a limited extent but should be expanded.
>Initially,
>this could be implemented without changes to the existing network.
>
Regional is a difficult term to identify on the internet. From
www.findu.com to www.aprs.net is 3 physical miles, but 14 hops (through
Chicago and Dallas) on the internet. second.aprs.net is only 10 hops from
findu, but the path is direct (and the ping time shorter). This is hardly
a unique situation...

For people that do not want the full internet feed there is AFilter and
AServe. However, I think that things do not warrant creating a complex
network with more layers than is necessary. A single group of central
servers is more than capable of supplying the present load, now and in
the forseeable future. KISS!!!!

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

49. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 8 Feb 2001 08:53:04 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133879-2001.02.08-08.07.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/8/01 1:59 AM Jon Anhold (jon@snoopy.net) wrote:

>Using port 23 is, in my opinion, a horrible idea. The only reason it's
>running on third.aprs.net is so I'm conforming with first & second, and
>even then it's a redir to 10152. There's no way I'm going to allow aprsd to
>run as root just so it can bind to a priviledged port we shouldn't be using
>in the first place.
>
First, I only asked the new first to move to port 23, because that is
where it has been on APRServe almost since the beginning, changing it
would have meant a lot of changes to user config files. I'm glad you did
this, it makes it less confusing, but it was not required. The central
servers have had different port arrangements for the last year or so,
since I moved www.aprs.net to linux.

Second, please explain what is so horrible. True, it's not "pure", but
how would you feel if you lived behind a restrictive firewall and this
was your only way to get the APRS feed? I have to deal with this at work,
the hospital blocks all non-standard ports, but it allows 23. I know I'm
not the only one (I wasn't facing this at work when I moved the port to
23, this was done for other firewalled users). It's not ideal, but as
you've shown, you needn't run as root to access the port, though most
people do run aprsd as a daemon...

Steve K4HG

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50. [aprsspec] Re: list

From: Bill Diaz <billdiaz@megsinet.net>
Date: Thu, 8 Feb 2001 07:48:47 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133884-2001.02.08-08.29.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John,

Ok, thank you for your support. TAPR provides many needed services to the
digital community, and these lists are much appreciated.

Bill KC9XG

On Thursday, February 08, 2001 7:27 AM, John Ackermann [SMTP:jra@febo.com]
wrote:
> The aprsspec list is a perfectly appropriate place for this discussion,
> at least at this stage of the game. You're welcome to keep using it.
>
> 73,
> John N8UR
> jra@febo.com -- n8ur@tapr.org
>
> ---
> You are currently subscribed to aprsspec as: billdiaz@megsinet.net
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

51. [aprsspec] Re: APRServe WG preliminary discussions.

From: Bill Diaz <billdiaz@megsinet.net>
Date: Thu, 8 Feb 2001 08:14:01 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133885-2001.02.08-08.29.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve,

On Thursday, February 08, 2001 7:27 AM, Steve Dimse [SMTP:k4hg@tapr.org] wrote:
> On 2/7/01 7:44 PM Kevin Brown (kbrown@powerhouseproductions.com) wrote:

> >1) No client connections.
>
> Doesn't that defeat the whole purpose of setting the system up?
>
> >2) Load-sharing/balancing. ergo: nearest server routing. Basically a
SNIP

> Let me explain again about the network load. Two servers on T1 lines were
> close to maxing out. Now there are three on much fatter pipes. To say
> that the load could grow six time present without strain is being
> conservative.
SNIP

> >3) Lets NOT forget about the bigger portion of the network: RF similar
> >features for dissemination of data between nodes needs to be created.

> OK, if by this you mean selective routing on TCP, I disagree strongly.
> APRS exists on a one-to-many paradigm, the internet is the ultimate
> expression of that, with one-to-all. For those that don't want it all,
> there is Bill's excellent AFilter and AServer, but most people want to
> see everything, the volume is not yet overwhelming even to a modem
> connection, people's pipes are getting fatter much faster than the stream
> is growing, I really don't see the need...

Many AFilter users run the distance filters almost wide open. Others use it to
limit the feed to provide regional data only. This can be particularly
important in countries that charge Internet fees based on the volume of data
downloaded.

Regional hubs that connect to the APRS core servers could be configured to
provide APRS data feeds tailored to users needs. This could include
GeoFiltered data, weather only, etc. Regional hubs could provide limited or
expanded services without placing additional burdens on the core servers.

Selective routing could be implemented at a regional hub if desired. There
would be no need to provide this capability in the core servers. IMO, they
should be dedicated to providing a reliable and consistant feed.

Bill KC9XG
> Steve K4HG
>

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52. [aprsspec] Re: APRServe WG preliminary discussions.

From: "Paul Manning" <PMANNING@flint.umich.edu>
Date: Thu, 8 Feb 2001 09:41:36 EDT
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133896-2001.02.08-08.56.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>>Date sent: Wed, 7 Feb 2001 15:29:20 -0700 (MST)
>>From: Joel Maslak <jmaslak@antelope.net>
>>To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
>>Subject: [aprsspec] Re: APRServe WG preliminary discussions.

>>
>>I know people probably won't like these suggestions. They involve
>>updating software, using newer computers (I.E. less than 5 years old) as
>>key network nodes, and improving the network. That said, I'm going to
>>suggest it anyhow. ;)
>>
>>I believe the concept that "everyone needs all the traffic" is not
>>beneficial for APRS - or any other high volume linking
>>network. Hopefully, the technology we develop here can be used on the
>>radio waves as well as the internet!

Hello to the list,

A couple questions:

Could their be different streams? A National stream and Regional streams?

Could the basic Time,Date,Call sign info could be used for filtering?

Would IGates be able to filter messages so that dups are cut down to maybe twice?

Could the GHz portion of the Amateur Radio spectrum be used for IGATE radio traffic, cutting down the APRS 2meter traffic??

Is or could the National traffic,in text form,be posted to a web site for downloading??

(I hope my questions have not been too far off track for the group.)

Paul
N8VXD

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53. [aprsspec] RE: [aprssig] Re: Wx Programs and APRS

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Thu, 8 Feb 2001 09:44:42 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133898-2001.02.08-08.57.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Roger and Group

I'm going to ask that the group accept a request that "internationalization" be one of the (many) issues foremost on our collective minds... as this and future "SPEC" efforts go forward....

I for one am a bit ashamed that the US is in the same group with Brunei
and Yemen as the holdouts in Metric and similar standards (day/month/yr
being one of those other "international" standards)...

I have certainly turned off some in the US with my comments about keeping
a world perspective in mind... not just US... and it's not been my
intention,
but at the same time... we really ought to make at least a token effort...

ALOHA
AH6LS

> -----Original Message-----
> From: Roger Barker [SMTP:roger@peaksys.co.uk]
> [snip]
> The specified format is e.g Feb 08 2001 01:02 - all fields padded with
> '0's and the date in am unambiguous format. (02/07/01 means "July 2nd
> 2001" in much of the world outside the USA.)
> Roger Barker, G4IDE - roger@peaksys.co.uk
>

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54. [aprsspec] Re: list

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 8 Feb 2001 10:18:00 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133904-2001.02.08-09.32.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 8 Feb 2001, Roger Barker wrote:

> Well, I thought the discussion was about a proposed specification for
> the APRS internet server network, which I would class as an APRS
> specification. But perhaps this list was only supposed to be for THE
> APRS spec?

This seems like the perfect place to me too.. too many lists dilutes the
effort..
bob

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55. [aprsspec] Re: APRServe WG preliminary discussions.

From: Jon Anhold <jon@snoopy.net>
Date: Thu, 8 Feb 2001 12:01:43 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133930-2001.02.08-11.15.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Previously, Steve Dimse (k4hg@tapr.org) wrote:
> On 2/8/01 1:59 AM Jon Anhold (jon@snoopy.net) wrote:
>
> >Using port 23 is, in my opinion, a horrible idea. The only reason it's
> >running on third.aprs.net is so I'm conforming with first & second, and
> >even then it's a redir to 10152. There's no way I'm going to allow aprsd to
> >run as root just so it can bind to a priviledged port we shouldn't be using
> >in the first place.
> >
> First, I only asked the new first to move to port 23, because that is
> where it has been on APRServe almost since the beginning, changing it
> would have meant a lot of changes to user config files. I'm glad you did
> this, it makes it less confusing, but it was not required. The central
> servers have had different port arrangements for the last year or so,
> since I moved www.aprs.net to linux.

I know, I'm just voicing my opinion. :)

> Second, please explain what is so horrible. True, it's not "pure", but
> how would you feel if you lived behind a restrictive firewall and this
> was your only way to get the APRS feed? I have to deal with this at work,
> the hospital blocks all non-standard ports, but it allows 23. I know I'm
> not the only one (I wasn't facing this at work when I moved the port to
> 23, this was done for other firewalled users). It's not ideal, but as
> you've shown, you needn't run as root to access the port, though most
> people do run aprsd as a daemon...

I'm running it as a daemon, it just doesn't run as root. The fact that I
found a solution to avoid running it as root makes it less painful, but
it still bothers me somewhat. I guess I'm all for purity. :)

-j

--
>From now on, I will try not to reason with the idiots I encounter.
I will dismiss them by waving my paw and saying 'Bah'
                                                    - Dogbert

---
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56. [aprsspec] Re: list

From: Jeff King <jeff@aerodata.net>
Date: Thu, 08 Feb 2001 15:52:59 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133985-2001.02.08-15.08.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Great John. Glad to see the TAPR support. One thing I would like to
see, if possible, is a "work area' so we can drop files for everyone
to look at. I've got a bunch of notes and files I'd like to drop in it.
Is there a APRSSPEC ftp file area? This is raw unpolished stuff.... just
work files.

Thanks

Jeff

John Ackermann wrote:
>
> The aprsspec list is a perfectly appropriate place for this discussion,
> at least at this stage of the game.

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57. [aprsspec] Re: APRServe WG preliminary discussions.

From: Jeff King <jeff@aerodata.net>
Date: Thu, 08 Feb 2001 16:29:43 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133987-2001.02.08-15.44.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse wrote:

> On 2/7/01 6:15 PM Jeff King (jeff@aerodata.net) wrote:

> >Agree. While I'd question to infinity, 3 clearly is to small of a number,
> >even for just the U.S. let alone the world.

> On what basis do you claim that three is "to small a number"?

I was agreeing with someone else. Also understand the message I was
replying to, and you apparently are making "mine", contained some
FUTURE thoughts. I think this is great, but we do need to get down
on paper what exists now. I think this should be our FOCUS and
not getting into these holy war tangents.

That much being said, here is my spin on it. Understand that there may
be a difference between regional servers and master servers.

1. The internet is not a homogeneous network.... it is not a big fat
ethernet pipe. It has choke points around the world and the country.
While I know some of you have all you can eat internet feeds, it is
not that way around the whole world nor realistic for the whole of the
U.S. Further, we need to be good internet citizens. Having 100's of
client connections going across a less then optimal (in some case)
internet backbones is not the way to do it, if at all possible. You
put the servers in the same internet cloud as the clients, if at all
possible. Even if NOTHING changed today, IMHO, the present server
network should be set up this way. It is just a no-brainer. I understand
the Canadians have actually done something like this already.

2. It would be wise, but not required, to model the typical
regional server on ~128K feeds (ISDN) as not to many folks have a
T1 in their back pocket. Understandably, this will reduce the number
of client side connections each can support, but with a greater number
of servers to chose from, this may not be an issue.

3. The poster whose message you made mine was referring to "mesh networks".
He I believe was thinking of the NOS ConversD network, which is quite
similar in basic function to the APRServe network, proceeding it by
some years. However it's internal architecture is quite different... it
was designed from the ground up to be able to run on lesser connections
then are required for AprsServe. As it is somewhat decentralized,
failure at a node point is not catastrophic. It also has limited abilities
to actually route around bad nodes. Not entirely error proof, but
one can typically safely go away for the weekend to the second home
without to much risk. But I am aware this is not how AprsServe is set
up today.

I can go on with other reasons, but don't want to get to far off topic.
Your might considering querying the person that originally posted the
message.

For now, I'd suggest we do the following:

1. Get down on paper what we have now.
2. Look for errors and omissions.... serious problems that need to be
fixed or improvements suggested.
3. And then we can talk about some extensions.

Sound like a plan?

73

Jeff

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58. [aprsspec] Re: APRServe WG preliminary discussions.

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 8 Feb 2001 17:03:25 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133995-2001.02.08-16.17.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 2/8/01 4:29 PM Jeff King (jeff@aerodata.net) wrote:

>> >Agree. While I'd question to infinity, 3 clearly is to small of a number,
>> >even for just the U.S. let alone the world.
>
>> On what basis do you claim that three is "to small a number"?
>
>I was agreeing with someone else. Also understand the message I was
>replying to, and you apparently are making "mine", contained some
>FUTURE thoughts.

The thought "3 clearly is to small of a number" seems very much to be
your opinion, but regardless, my comment was directed at the opinion, not
at you personally. I asked you to explain why you felt that way.

>I think this is great, but we do need to get down
>on paper what exists now. I think this should be our FOCUS and

>not getting into these holy war tangents.
>
If you felt that, then why the rest of the message????

>That much being said, here is my spin on it. Understand that there may
>be a difference between regional servers and master servers.
>
>1. The internet is not a homogeneous network.... it is not a big fat
>ethernet pipe. It has choke points around the world and the country.
>While I know some of you have all you can eat internet feeds, it is
>not that way around the whole world nor realistic for the whole of the
>U.S. Further, we need to be good internet citizens. Having 100's of
>client connections going across a less then optimal (in some case)
>internet backbones is not the way to do it, if at all possible. You
>put the servers in the same internet cloud as the clients, if at all
>possible. Even if NOTHING changed today, IMHO, the present server
>network should be set up this way. It is just a no-brainer. I understand
>the Canadians have actually done something like this already.
>
The concept of regional is meaningless in the present internet topology.
As I explained, the path between my two servers is longer than between
findu and socal. Even if people in Miami were to use one of my servers,
many of them would still have their packets blasted at least through
Atlanta, if not much further away.

I would love to have made a European, Canadian, or Austrailian server
third.aprs.net, but none volunteered. That they are all US is not
US-centrism, but rather the result of no volunteers elsewhere.

>2. It would be wise, but not required, to model the typical
>regional server on ~128K feeds (ISDN) as not to many folks have a
>T1 in their back pocket. Understandably, this will reduce the number
>of client side connections each can support, but with a greater number
>of servers to chose from, this may not be an issue.
>
This is very much unrealistic. ISDN is 64 or 128 k bits/sec, roughly 8
feeds. If a server interlinked with three others, it could only handle 5
users. A minimum of 50 servers would have to be linked, an administrative
nightmare.

>1. Get down on paper what we have now.
>2. Look for errors and omissions.... serious problems that need to be
>fixed or improvements suggested.
>3. And then we can talk about some extensions.

I have no problems with this.

Steve K4HG

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59. [aprsspec] Re: list

From: Jon Anhold <jon@snoopy.net>
Date: Thu, 8 Feb 2001 19:01:41 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-134005-2001.02.08-18.15.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Previously, Jeff King (jeff@aerodata.net) wrote:
> Great John. Glad to see the TAPR support. One thing I would like to
> see, if possible, is a "work area' so we can drop files for everyone
> to look at. I've got a bunch of notes and files I'd like to drop in it.
> Is there a APRSSPEC ftp file area? This is raw unpolished stuff.... just
> work files.

http://ohioaprs.net/aprservewg/

upload via ftp to ohioaprs.net, login: 'aprservewg' and your email address
as the password.

-j

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60. [aprsspec] Files uploaded, was re: list

From: Jeff King <jeff@aerodata.net>
Date: Thu, 08 Feb 2001 22:05:47 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-134033-2001.02.08-21.21.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jon Anhold wrote:

> http://ohioaprs.net/aprservewg/

> upload via ftp to ohioaprs.net, login: 'aprservewg' and your email address
> as the password.

That was quick ;-)

I uploaded the following files to Jon's system (above) and also the
upload directory of APRSSIG on TAPR. The TAPR files will need to be
moved someplace so people can access them. They are as follows:

aprsdDOC.htm   (HTML docs for APRSD)
aprsdTCPportfunctions.htm   (Port defines for APRSD)
aprsserve_dcc.html   (Steve's original paper)
inetmsg.html   (APRS messaging)
valid.html   (User validation)
validation.c   (C source code+ msg, which I should have called password.c)

Nothing new here, just getting it all in one place. Some of this stuff
can just be cut and pasted.

-Jeff

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61. [aprsspec] Internet feed comparison.

From: Bill Diaz <billdiaz@megsinet.net>
Date: Sun, 11 Feb 2001 20:09:39 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-134530-2001.02.11-20.24.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Comparison tests were conducted of the data provided by first.aprs.net (aprsd)
and second.aprs.net (APRServe) to see if there were any appreciable differences
in feed content.

2 separate sessions of AFilter 2.03.7 were used to simultaneously connect to
first.aprs.net and second.aprs.net. Each AFilter session used strict error
checking. All packets that failed AFilter strict error checking were logged to
disk. The test session was conducted from Feb 17, 15:16CST to 16:16CST.

AFilter strict error checks may log certain APRS compliant packets as errors.
 Therefore, the files will contain perfectly compliant packets that do not, for
various reasons, meet the requirements of the current AFilter sessions. These
packets were not included in the detailed error analysis.

AFilter total errors reported. All errors.
                First   Second
                751   468

The error logs were examined to determine if aprsd and APRServe had differing
results in the types and quantities of errors reported. Large discrepancies are
noted below.

Explanation of errors reported :

Data errors : Packets less than 9 bytes or greater than 399 bytes in length.
 Packets that do not contain greater than or colon.

Header char errors : Illegal char in header, improper formatting of header.
 Originating call too long.

Header dest errors : Destination call is WIDE, [invalid] or other invalid call
type.

Msg Length : Payload of APRS message type > 84 bytes.

Error type	First	Second
Data	72	0
Header char	27	2
Header dest	70	0
Msg length	253	75
	===	===
Totals	422	77

Further studies will be conducted to confirm or refute the initial results.
 Future studies will also examine the links between servers.

The errorlog files are available if anyone is interested in obtaining a copy.

Bill KC9XG
 Display current vehicle location :
 http://www.findu.com/cgi-bin/find.cgi?KC9XG-14

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62. [aprsspec] APRS destination address for UI-View

From: Roger Barker <roger@peaksys.co.uk>
Date: Fri, 16 Feb 2001 12:08:22 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-135426-2001.02.16-06.25.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Following the recent discussions about the use of APxxxx destination
addresses in the APRSSIG, unless anyone has any serious objections, I
intend to use APU1xx for 16 bit UI-View and APU2xx for UI-View32.

In both cases xx will represent the version number multiplied by 100 and
then converted to base 36. E.g. version 1.79 would be 4Z.

That leaves lots of APUxxx options available for other applications,
should anyone else wish to use them.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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63. [aprsspec] "non binary networks"

From: Joel Maslak <jmaslak@antelope.net>
Date: Mon, 19 Feb 2001 09:49:08 -0700 (MST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-136038-2001.02.19-10.55.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I was reading the chapter of the spec on implementing the Mic-E data
format. I came to the following on the last page of this chapter, page
56:

===

Some parts of the Mic-E AX.25 Information field may contain binary data
(i.e. non-printable ASCII characters). If such a packet is constrained to
the APRS network, this should not cause any difficulties.

If, however, the packet is to be forwarded via a network that does not
reliably preserve binary data (e.g. the Internet), then it is necessary to
convert the data to a format that will preserve it.

Further, if the packet subsequently re-emerges back into the APRS network,
it will then be necessary to re-convert the data back to its original

format.

===

I actually think the current APRS network will have more problems with the Mic-E format than the Internet! As far as I can tell, the only special characters transmitted are ASCII characters 28 and 29 - and then only in Beta Mic-E's.

True, ascii 29 is often a control character for telnet. But, it is only a control character when hit from the keyboard of an interactive session - it can be received just fine.

Ascii 28 poses no problems.

Even though we have APRS servers on port 23, it is an 8 bit clean link, as it doesn't run the telnet protocol (like most port 23s), so there is no quoting or conversion necessary. There is no operating system that I know of that doesn't implement an 8 bit clean TCP/IP sockets (otherwise, FTP wouldn't work). I've observed MANY control characters on APRSServe, and none seem to crash any of the servers (although some clients crash when they see "unusual" data - but they do this on RF, too).

Converting these MIC-E messages is a nice thought, but unless a conversion method is specified, it won't work. Too many people will convert them too many ways (sound familiar?).

So, here's a proposal for the WG to look at, vote on, whatever:

This paragraph should be changed to "Any network that causes ASCII characters 28 and 29 to be converted may not be suitable for transmission of MIC-E formatted messages. Software should convert these beta MIC-E messages. The conversion procedure is to replace character 28 with "\034" and character 29 with "\035" (the octal equivilants preceeded with a backslash). These messages MUST NOT be sent in converted form into APRS Serve or the APRS network. When sending into either of these networks, the software much convert these characters back into ASCII characters 28 and 29 to allow duplicate packet detection.

===

An alternative, if the working group thinks the above will cause too many problems:

The Beta MIC-E format messages are currently deprecated and may not work across some third-party networks. Gateway software should drop, rather than convert, these packets if they can not be sent across the transit network.

===

I would appreciate the WG reporting on what happens to this small proposal. This is NOT a APRSServe proposal, but a proposal to change the actual APRS spec.

--
Joel Maslak
N7XUC

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March 2001

Original source file: aprsspec.0103
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0103

1. [aprsspec] ADMIN: The Monthly Message

From: "Horzepa, Stan" <Stan_Horzepa@adc.com>
Date: Thu, 1 Mar 2001 11:49:09 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-138074-2001.03.01-12.05.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

PURPOSE

The purpose of the APRS SPEC SIG is to provide a forum for folks interested in discussing the APRS protocol specification.

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APRS SPEC SIG RULES

The APRS SPEC SIG has a few simple rules:

. Be courteous. Abusive, insulting, or rude behavior demonstrated towards another list member is a violation of this rule.

. Stick to the subject, i.e., the APRS protocol specification. Subjects that are only tangentially related to the APRS protocol specification (like "what kind of printer should I buy to print out my copy of the APRS specification?") may be considered off-topic. If you start a message with "this is off-topic..." then you are violating this rule.

. Be succinct when composing a message. (The APRS SPEC SIG software has been optioned to limit the length of each message.)

. When quoting a previous message, only quote the parts of that message you are referencing. (The APRS SPEC SIG software has been optioned to limit the length of a quote.)

. Do not send messages in HTML of Rich Text format.

. Do not send attachments.

. Cross-posting is not permitted. (The APRS SPEC SIG software has been optioned to prevent cross-posting.)

. The APRS SPEC SIG administrator reserves the right to suspend or ban any list member who violates these rules.

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QUESTIONS, COMMENTS, ETC.

If you have any questions, comments, etc. concerning the APRS SPEC, please email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] first.aprs.net ... second.aprs.net ... third.aprs.net

From: James Jefferson <jjeffers@deskmedia.com>
Date: Mon, 05 Mar 2001 19:24:12 -0600

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-139002-2001.03.05-19.39.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can someone please explain the differences between the different numbered
APRS servers. I notice a different data stream is coming from each one.

-James Jefferson KB0THN

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3. [aprsspec] Re: first.aprs.net ... second.aprs.net ... third.aprs.net

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 6 Mar 2001 00:41:15 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-139030-2001.03.05-23.56.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/5/01 8:24 PM James Jefferson (jjeffers@deskmedia.com) wrote:

>Can someone please explain the differences between the different numbered
>APRS servers. I notice a different data stream is coming from each one.
>
The differences have been explained several times, consult the archives
of this list and aprssig for details of the differences. In brief, the
two servers run different programs. They differ in filtering
capabilities, but in terms of viable data, they should all have the same
data, though the ordering will be different.

Steve K4HG

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4. [aprsspec] kam & pk-88 tnc's

From: "ANDY VE7FTR" <ve7ftr@home.com>
Date: Wed, 14 Mar 2001 08:40:28 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-366-2001.03.14-10.52.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

hi
would anybody know the aprs settings [vhf] for the KAM [6.0 ver] ALL
MODE TNC ? and also the PK-88 aprs settings ?
i'm using WINAPRS.
thanks
73.
andy VE7FTR

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5. [aprsspec] Re: kam & pk-88 tnc's

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 14 Mar 2001 10:09:15 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-390-2001.03.14-12.24.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 14 Mar 2001, ANDY VE7FTR wrote:

> would anybody know the aprs settings [vhf] for the KAM [6.0 ver] ALL
> MODE TNC ? and also the PK-88 aprs settings ?
> i'm using WINAPRS.

I'm not a WinAPRS user (you should know that from my .sig), but I
have run PK-88's on APRS a bunch.

Whatever you do, make sure that "mfilter" is disabled on it,
otherwise some of the non-printable MIC-E format characters will

end up getting filtered at the TNC and never making it to your
computer.

I think "mfilter 0" is what kills the filtering (tells it to filter
out the 0x00 character, which is ok).

Just a helpful hint from someone who's REALLY been there. Of course
my computer said I was somewhere else because of "mfilter"...

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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6. [aprsspec] kam & pk-88 tnc's

From: "Andy VE7FTR" <ve7ftr@home.com>
Date: Wed, 14 Mar 2001 11:00:57 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-405-2001.03.14-13.13.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

OOPS..... it's ver.5.0 in the kam all mode tnc. i had to look inside
case.
tnks
andy VE7FTR

> hi
> would anybody know the aprs settings [vhf] for the KAM [6.0 ver] ALL
> MODE TNC ? and also the PK-88 aprs settings ?
> i'm using WINAPRS.
> thanks
> 73.
> andy VE7FTR
>
>
> ---

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7. [aprsspec] Remote I-Gate control, was: I'm STILL in China

From: Jeff King <jeff@aerodata.net>
Date: Tue, 20 Mar 2001 12:41:21 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>
Message-ID: <LYR11589-1674-2001.03.20-12.00.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff Brenton wrote:

> AND the
> gates in the area are operating properly (we have 3 in the area).
>
> But, being 20 miles from an IGate doesn't mean you're guaranteed to be on
> FINDU. One of the gates in our area has a bad receiver, and has PASSALL
> turned on, so all the garbage gets passed into internet.

And then...

WA8LMF1@aol.com wrote:

> Your D700's compressed Mic-E-format packets are being trashed by an Internet
> gateway station running an out-of-date version of WinAPRS (2.4.6) that has a
> known bug that does this (what I call the "hyper-jump" problem).   This
> problem crops up on this list about once every three months.
>
> Again.......   YOU MUST NOT IGATE WITH WinAPRS 2.4.6 !!!!!!!

Just thinking it might be handy to have some internet remote control of the stations that
are gating.... basically a remote control that allows you to disable gating if the station
is out of control and/or out of spec. Filtering only treats the symptom of these problems,
and in fact cannot address all of them.

This would need to be written into the GUI's and applications that function as a gateway.
Someone trusted would need to hold the passcodes.

Just thinking out loud how I might address the above problem if I was in a position to
do anything about it. Feel free to file this in the round folder.

-Jeff

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8. [aprsspec] Re: Remote I-Gate control, was: I'm STILL in China

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Tue, 20 Mar 2001 11:51:34 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-1676-2001.03.20-12.07.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

It's not hard to do Jeff ... just don't allow them to connect to the
server they are flooding / feeding with inappropriate data. That way
everything can be in APRSd, instead of upgrading lots of WinAPRS (and
still having the buggy WinAprs 2.4.6 out there) ... it would be almost
trivial to have the daemon check the IP of the box requesting a
connection before forking a new process.

-Jim Jefferson

> Jeff Brenton wrote:
>
> > AND the
> > gates in the area are operating properly (we have 3 in the area).
> >
> > But, being 20 miles from an IGate doesn't mean you're guaranteed to
be on
> > FINDU. One of the gates in our area has a bad receiver, and has
PASSALL
> > turned on, so all the garbage gets passed into internet.
>
> And then...
>
>
> WA8LMF1@aol.com wrote:
>
> > Your D700's compressed Mic-E-format packets are being trashed by an
Internet
> > gateway station running an out-of-date version of WinAPRS (2.4.6)
that has a
> > known bug that does this (what I call the "hyper-jump" problem).
This
> > problem crops up on this list about once every three months.
> >
> > Again.......   YOU MUST NOT IGATE WITH WinAPRS 2.4.6 !!!!!!!
>
>
> Just thinking it might be handy to have some internet remote control
of the stations that
> are gating.... basically a remote control that allows you to disable
gating if the station
> is out of control and/or out of spec. Filtering only treats the
symptom of these problems,
> and in fact cannot address all of them.
>
> This would need to be written into the GUI's and applications that
function as a gateway.
> Someone trusted would need to hold the passcodes.
>
> Just thinking out loud how I might address the above problem if I was
in a position to
> do anything about it. Feel free to file this in the round folder.
>
> -Jeff

```
>
> ---
> You are currently subscribed to aprsspec as: jjeffers@deskmedia.com
> To unsubscribe send a blank email to
leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator:
wa1lou@tapr.org
>
>
>
>
>
>



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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

9. [aprsspec] APRS Compliance

```
From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Fri, 23 Mar 2001 16:08:46 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-2541-2001.03.23-16.23.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
It occurred to me today that testing for APRS compliance would be easier if a "test" file was available.
  If it were accompanied by a check list, the APRS author could verify the results produced by his
software to determine conformance to the spec.  You couldn't verify all aspects of the software this
way, but it would be a great start.

Rich Beckwith - Wn0x


---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

10. [aprsspec] Message format of Kenwood radios

```
From: Rolf Bleher <mail@Rolf-Bleher.de>
Date: Sat, 24 Mar 2001 13:57:03 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-2622-2001.03.24-08.57.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
Hello,

I'm currently programming for the XASTIR APRS software and came
along some unknown formats received from Kenwood TM-D700 radios.

They seem to use '~' for messages and acknowledges, the message end
character too is not '{' but '~' and there is a binary instead of
'ack'.

The data type '~' is defined "Do not use - TNC stream switch" in the
current version of the PARS Reference document.

Is this problem known? Is everyone implementing his own rules and
tells us he is APRS compliant? Should I implement messages this way?

Thanks and 73s
de Rolf
--
                                 ____________________________________
  Rolf Bleher       DK7IN      /
  N52d32.660' E013d20.920'    /  Linux - life is too short for reboots
_____________________________/                http://www.dk7in.de
                                                 Rolf@dk7in.de

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

11. [aprsspec] Re: Message format of Kenwood radios

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 24 Mar 2001 14:48:51 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-2623-2001.03.24-09.05.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-2622-2001.03.24-08.57.23--roger#peaksys.co.uk@lists
.tapr.org>, Rolf Bleher <mail@Rolf-Bleher.de> writes
>Hello,
>
>I'm currently programming for the XASTIR APRS software and came
>along some unknown formats received from Kenwood TM-D700 radios.
>
>They seem to use '~' for messages and acknowledges, the message end
>character too is not '{' but '~' and there is a binary instead of
>'ack'.

They're UI-View format messages. They're not coming from Kenwood radios.
(I wonder why you think they are?) They have to relevance to the APRS
specification.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] Re: Message format of Kenwood radios

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 24 Mar 2001 15:28:10 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-2627-2001.03.24-09.44.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-2623-2001.03.24-09.05.39--roger#peaksys.co.uk@lists
.tapr.org>, Roger Barker <roger@peaksys.co.uk> writes
[snip]
>
>They're UI-View format messages. They're not coming from Kenwood radios.
>(I wonder why you think they are?) They have to relevance to the APRS
                          Typo, should be "no" ^^
>specification.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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13. [aprsspec] UI-View messages, was: Message format of Kenwood radios

From: Rolf Bleher <mail@Rolf-Bleher.de>
Date: Sun, 25 Mar 2001 13:16:54 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-2729-2001.03.25-06.17.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello,

> They're UI-View format messages. They're not coming from Kenwood radios.
> (I wonder why you think they are?) They have no relevance to the APRS
> specification.

Thank you Roger for pointing me to that, I thought those guys are
using TM-D700. But it could be, that they use their Kenwood
transceivers only in the car and use UI-View at home.

I now ignore that data frames. Should I do something useful with it
or is it only used for communication between two UI-View stations?

73 de Rolf
--

```
                                  ____________________________________
  Rolf Bleher       DK7IN      /
  N52d32.660' E013d20.920'    /  Linux - life is too short for reboots
_______________________________/                http://www.dk7in.de
                                                   Rolf@dk7in.de

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```

14. [aprsspec] Re: UI-View messages, was: Message format of Kenwood radios

```
From: Roger Barker <roger@peaksys.co.uk>
Date: Sun, 25 Mar 2001 13:24:18 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-2734-2001.03.25-06.41.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
In article <LYR13460-2729-2001.03.25-06.17.32--roger#peaksys.co.uk@lists
.tapr.org>, Rolf Bleher <mail@Rolf-Bleher.de> writes
>Hello,
>
>> They're UI-View format messages. They're not coming from Kenwood radios.
>> (I wonder why you think they are?) They have no relevance to the APRS
>> specification.
>
>Thank you Roger for pointing me to that, I thought those guys are
>using TM-D700. But it could be, that they use their Kenwood
>transceivers only in the car and use UI-View at home.
>
>I now ignore that data frames. Should I do something useful with it
>or is it only used for communication between two UI-View stations?

I would ignore it. I don't think there's any point in supporting it in
other software.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

---
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```

15. [aprsspec] Re: APRS Compliance

```
From: Timothy J Salo <tjs@tc.umn.edu>
Date: Tue, 27 Mar 2001 11:26:18 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3119-2001.03.27-11.42.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
> Date: Fri, 23 Mar 2001 16:08:46 -0600
> From: "Rich Beckwith" <Rich@dps.state.mo.us>
> Subject: [aprsspec] APRS Compliance
>
> It occurred to me today that testing for APRS compliance would be easier
> if a "test" file was available.  If it were accompanied by a check list,
> the APRS author could verify the results produced by his software to
> determine conformance to the spec.  You couldn't verify all aspects of the
> software this way, but it would be a great start.

A few thoughts:

o       First, there needs to be a generally accepted understanding of
        what "APRS compliance" means.  For example, does it mean
        "this implementation conforms to the APRS specification", or
        does it mean "this implementation passes a certification test suite
        that Bob Bruninga talked about creating"?  I strongly favor
        language that differentiates these two concepts, perhaps
        "compliance" versus "certification".

o       Second, what does it mean to "conform to the APRS specification"?
        Does an implementation need to correctly receive all formats in
        the specification, or just some?  Does an implementation need to
        be able to transmit all formats in the specification?  Can a
        tracker ever be "APRS compliant", since it can't send messages?
```

I believe that it would be useful to create different classes of APRS devices (analogous to what are often called "profiles" in other standards work). That way, a tracker could be "APRS compliant" if it conforms to the tracker profile, without having to have a graphical user interface.

The APRS specification never cleanly separated protocol issues from user interface issues. I believe that this will tend to confuse discussions about "APRS compliance". Is an implementation "APRS compliant" if it conforms to the protocol specification, but not to the commentary in the APRS specification about user interfaces? (Personally, I think it was a mistake to include user interface issues in the APRS protocol specification, largely for this reason.)

o Third, it would be very useful for a third party (i.e., not the developer of APRS code) to determine APRS compliance. During the development of the APRS specification a number of developers said things of the sort "No, the specification must be wrong, because my code does it differently."

o Fourth, the development of a good test suite is a very tedious process. Plus, this difficulty is likely to be compounded by complaints from developers whose code fails a particular test. On the other hand, this is part of the maturation process for any protocol specification. The specification is, in some sense, tested every time two parties discuss whether a particular format or sequence conforms to the specification. Perhaps, the result of these discussions is that the specification is incomplete, inconsistent, or vague, and needs to be enhanced.

o Finally, there is the issue of whether developers particularly care whether their implementation conforms to the APRS specification. I believe that during the development of the APRS protocol specification one or more developers said, more or less, "I don't care what the specification says, this is what my code is going to do." <Insert long, extended debate about advantages of open source implementations here, or not...> <Insert another long extended debate about the importance of interoperability of APRS implementations here...>

A freely available test suite, plus a publicly available compilation of test results would, in my opinion, be a very good thing.

-tjs

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16. [aprsspec] Re: APRS Compliance

From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 27 Mar 2001 18:38:41 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3124-2001.03.27-11.55.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-3119-2001.03.27-11.42.31--roger#peaksys.co.uk@lists
.tapr.org>, Timothy J Salo <tjs@tc.umn.edu> writes
[snip]
>o Fourth, the development of a good test suite is a very tedious
> process.
[snip]

And, without a good deal of care, will not be usable to test some programs, if they do not normally process the typical, simplistic, monitored data output from a TNC.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

17. [aprsspec] Re: APRS Compliance

From: Timothy J Salo <tjs@tc.umn.edu>
Date: Tue, 27 Mar 2001 16:50:23 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3181-2001.03.27-17.06.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Timothy J Salo <tjs@tc.umn.edu> writes:
> >o Fourth, the development of a good test suite is a very tedious
> > process.
>
> And, without a good deal of care, will not be usable to test some
> programs, if they do not normally process the typical, simplistic,
> monitored data output from a TNC.

The TNC/PC interface is, from the perspective of the APRS protocol specification, an interface internal to an APRS station. The APRS protocol specification should make no reference to this [internal and optional] interface (although I haven't reviewed the spec with this topic in mind).

I believe that it is far more appropriate for an APRS protocol test suite to be expressed as raw AX.25 frames (which reflect the objective of the protocol specification, namely to specify correct on-the-air formats and protocols).

Of course, this leaves the challenges of representing on-the-air AX.25 packets (I believe that the TAPR TNC2 THN/Host interface is a poor choice) and getting the test packets into an APRS implementation (if I had time, I would try wiring two 1200 bps TNCs or modems back to back to see if they would transfer packets).

-tjs

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18. [aprsspec] RE: APRS/Beacon Net differences

From: "Cap Pennell" <cap@cruzio.com>
Date: Tue, 27 Mar 2001 19:18:00 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3207-2001.03.27-21.34.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev W2EV wrote to APRSSIG:
<snip>
> Again...(I keep saying this over and over) this is not to say that
> BEACONet is better than APRS...it's just different...but not so
> different as to keep APRSdos and UI-View users from participating if
> they so choose.
>
> Regards,
> Ev, W2EV

Even WinAPRS (still the most popular software) and the Kenwood radio operators could participate if you changed your "BEACONet Protocol" just a _little_ bit. That could greatly increase BEACONet's acceptance, Ev, and I believe it would be well worth the effort.

You write at
http://www.rochesterny.org/beaconet/information/BEACONet%20Protocol.txt :

BEACONet(tm) To-Call Field Parsing (vers. Alpha.08):

A Destination-call or To-Call of CQ or BEACON may be used.
When done so, it should be understood as a valid BEACONet
frame, with station information "undisclosed".

Otherwise, the embedded information in the To-Call takes the
format of BSNPAH-D where:

B = Band from Table 1
S = Sub-band from Table 1
N = Network Function. See Table 7 and associated notes.
P = Power Output (not ERP) from Table 2
A = Antenna Influence from Table 3
H = Height Above Average Terrain from Table 4

D = Directivity from Table 5
<snip>

The 3 Bytes that cause your proposed incompatibility with some software and
the Kenwood radios are the first two characters of the AX.25 Destination
Address (which your protocol uses for "transmit frequency" info, "B" and
"S"), and the SSID which you use for "Antenna Directivity" ("D").

All except B, S, and N can be relayed with the use of PHG (which even
WinAPRS understands) as in other AP* flavors.
What about the idea of keeping your B, S, and N in there using something
like
APbsn
and using PHG for the other info.
Maybe even throw another letter in there after the AP to specifically
designate BEACONet. Looks like B is still available. Then it would be
APBbsn

This small change would eliminate all incompatibility with ALL the flavors
of software AND the Kenwood radios.

Since you already state that a "valid BEACONet frame, with station
information undisclosed" is allowable, why not make this small compromise to
allow so many more people to participate?
73, Cap KE6AFE

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19. [aprsspec] Re: APRS Compliance

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Mar 2001 09:15:27 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3241-2001.03.28-02.32.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-3181-2001.03.27-17.06.40--roger#peaksys.co.uk@lists
.tapr.org>, Timothy J Salo <tjs@tc.umn.edu> writes
[snip]
>
>I believe that it is far more appropriate for an APRS protocol test suite
>to be expressed as raw AX.25 frames (which reflect the objective of the
>protocol specification, namely to specify correct on-the-air formats and
>protocols).

Yes, I think that's definitely the best approach.

>Of course, this leaves the challenges of representing on-the-air AX.25
>packets (I believe that the TAPR TNC2 THN/Host interface is a poor choice)
>and getting the test packets into an APRS implementation (if I had time,
>I would try wiring two 1200 bps TNCs or modems back to back to see if
>they would transfer packets).

It usually works ok.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

20. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 28 Mar 2001 07:04:34 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3289-2001.03.28-06.20.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/27/01 5:50 PM Timothy J Salo (tjs@tc.umn.edu) wrote:

>The TNC/PC interface is, from the perspective of the APRS protocol

>specification, an interface internal to an APRS station. The APRS protocol
>specification should make no reference to this [internal and optional]
>interface (although I haven't reviewed the spec with this topic in mind).
>
Actually, no. Part of the spec, the "third party format", makes the TNC
text external to the station. Even a hypothetical client program that
only operated in KISS mode is still going to have to have the capability
to parse the TNC text format.

>I believe that it is far more appropriate for an APRS protocol test suite
>to be expressed as raw AX.25 frames (which reflect the objective of the
>protocol specification, namely to specify correct on-the-air formats and
>protocols).
>
To the best of my knowledge, all APRS programs accept the text format of
input. By "raw AX.25 frames" I presume you are proposing a new file
format with just the binary data, correct? TTBOMK, no APRS program
accepts this format. Therefore, in order to use the test suite, each
author must add code to their program, code which is otherwise worthless,
and could be another source of errors. Alternatively, someone must write
programs to transmit the info on the air (or two TNC's back to back).
This would allow people other than the programmers to perform the test,
but requires setting up hardware.

If it were a TNC text file, click open and you are testing.

What precisly do you gain by using this format other than being more pure?

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

21. [aprsspec] Re: APRS Compliance

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Mar 2001 14:02:05 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3295-2001.03.28-07.18.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-3289-2001.03.28-06.20.51--roger#peaksys.co.uk@lists
.tapr.org>, Steve Dimse <k4hg@tapr.org> writes
>On 3/27/01 5:50 PM Timothy J Salo (tjs@tc.umn.edu) wrote:
>
>>The TNC/PC interface is, from the perspective of the APRS protocol
>>specification, an interface internal to an APRS station. The APRS protocol
>>specification should make no reference to this [internal and optional]
>>interface (although I haven't reviewed the spec with this topic in mind).
>>
>Actually, no. Part of the spec, the "third party format", makes the TNC
>text external to the station. Even a hypothetical client program that
>only operated in KISS mode is still going to have to have the capability
>to parse the TNC text format.
[snip]

Programs may be able to parse "TNC text format" embedded in a third
party frame, but that may not be the format of the input to the program.
The input to the program may be KISS frames, WA8DED host mode frames,
etc. You cannot use "TNC text" as the input to a program that is
expecting to see KISS frames, on the grounds that somewhere in its
processing it can handle that data. To handle "TNC text" as the program
input would require compliance testing to be done on a special version
of the program with some sort of input "hook" added.

Even if the program uses a TNC in terminal mode, and accepts "TNC text"
input, it may choose not to take the "normal" approach of discarding the
frame type information before it leaves the TNC. Therefore input like
"G4IDE>APRS:Information field goes here" may be discarded.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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22. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 28 Mar 2001 08:46:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3301-2001.03.28-08.03.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/28/01 8:02 AM Roger Barker (roger@peaksys.co.uk) wrote:

>Programs may be able to parse "TNC text format" embedded in a third
>party frame, but that may not be the format of the input to the program.
>The input to the program may be KISS frames, WA8DED host mode frames,
>etc. You cannot use "TNC text" as the input to a program that is
>expecting to see KISS frames, on the grounds that somewhere in its
>processing it can handle that data. To handle "TNC text" as the program
>input would require compliance testing to be done on a special version
>of the program with some sort of input "hook" added.
>
I am aware, and stated, that you cannot feed TNC text into a program that
is expecting KISS mode. My statement was that no program accepts input
exclusively in these modes, to the best of my knowledge.

Are you saying that UIView does not work with a TNC in text mode? I will
admit that my experience with your program is extremely limited, but I'm
surprised your users haven't asked for that feature, if for not other
reason than to import tracks retrieved with the findu rawposit script.

If your program does accept this input format, do you know of any other
program that does not? Even if yours, or another program will not, how
hard is it to add that, since you already must process the format in the
third party packet?

Compare that effort to that required of _every_ author to support a new
file format.

And again, what does the proposed format provide that a TNC text format
does not?

>Even if the program uses a TNC in terminal mode, and accepts "TNC text"
>input, it may choose not to take the "normal" approach of discarding the
>frame type information before it leaves the TNC. Therefore input like
>"G4IDE>APRS:Information field goes here" may be discarded.
>
Sorry, I don't follow this, can you elaborate?

Steve K4HG

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23. [aprsspec] Re: APRS Compliance

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Mar 2001 15:23:12 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3305-2001.03.28-08.40.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-3301-2001.03.28-08.03.16--roger#peaksys.co.uk@lists
.tapr.org>, Steve Dimse <k4hg@tapr.org> writes
[snip]
>
>Are you saying that UIView does not work with a TNC in text mode? I will
>admit that my experience with your program is extremely limited, but I'm
>surprised your users haven't asked for that feature, if for not other
>reason than to import tracks retrieved with the findu rawposit script.

It supports terminal mode, but to accept the simple format I quoted, and
the format you are presumably referring to as "TNC text" -
G4IDE>APRS:Information field goes here
Is an "only use this input format if you really have to" option.

It's not a problem for me, because I'm well capable of putting together
an input converter to read the TNC text, and output it as UI KISS
frames.

However, as development of APRS compatible software outside the USA
hopefully increases, this problem is likely to affect other apps. There
are parts of the world where the "normal" TNC is, for instance, a TNC2
with WA8DED/TF firmware.

So I'm only expressing an opinion on what I think is a desirable format
for test data, not pointing out an insurmountable problem.

[snip]
>Compare that effort to that required of _every_ author to support a new
>file format.

I don't quite see it like that. If someone is going to make the huge
effort to produce a "test suite", I would have thought it was better to
provide a reference set of KISS frames, that can be very easily
converted into any input format the author may require. A binary
representation of a frame is a more reliable definition than something
that has supposedly come out of a TNC2 with a particular set of
parameters configured.

>And again, what does the proposed format provide that a TNC text format
>does not?

See above.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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24. [aprsspec] Re: APRS Compliance

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Wed, 28 Mar 2001 09:16:29 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3318-2001.03.28-09.31.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>>Are you saying that UIView does not work with a TNC in text mode? I will
>>admit that my experience with your program is extremely limited, but I'm
>>surprised your users haven't asked for that feature, if for not other
>>reason than to import tracks retrieved with the findu rawposit script.

>It supports terminal mode, but to accept the simple format I quoted, and
>the format you are presumably referring to as "TNC text" -
>G4IDE>APRS:Information field goes here
>Is an "only use this input format if you really have to" option.

Did I miss something? Isn't most of the APRS Spec based on the "simple" terminal format?

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25. [aprsspec] Re: APRS Compliance

From: Joel Maslak <jmaslak@antelope.net>
Date: Wed, 28 Mar 2001 08:23:09 -0700 (MST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3321-2001.03.28-09.36.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Mar 2001, Rich Beckwith wrote:

> Did I miss something? Isn't most of the APRS Spec based on the
> "simple" terminal format?

Yes - but I think we should also test the program's ability to deal with
unusual control characters in the data stream, since it happens in real
life (TNCs break, people do compressed mail transfers on 144.39, etc)...

--
Joel

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26. [aprsspec] Re: APRS Compliance

From: Mark Sproul <msproul@jove.rutgers.edu>
Date: Wed, 28 Mar 2001 10:17:12 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3323-2001.03.28-09.41.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

><SMIP>

>If your program does accept this input format, do you know of any other
>program that does not? Even if yours, or another program will not, how
>hard is it to add that, since you already must process the format in the
>third party packet?
>
>Compare that effort to that required of _every_ author to support a new
>file format.
>
>And again, what does the proposed format provide that a TNC text format
>does not?

I agree with Steve, the text mode format is an easy to read text file
that can be parsed by hand and characters counted. If you had a
binary format test suite, it would require special programs to
create, edit, and view the data. Since its purpose would be to test
APRS programs, using an APRS program to view the data would not be
sufficient.

Mark
--

Mark Sproul   http://ecs.rutgers.edu | msproul@jove.rutgers.edu
Manager - Engineering Computing Services | 732-445-3121
Eng B-124-C |

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27. [aprsspec] Re: APRS Compliance

From: Mark Sproul <msproul@jove.rutgers.edu>
Date: Wed, 28 Mar 2001 10:24:42 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3324-2001.03.28-09.42.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>[snip]
>
>Programs may be able to parse "TNC text format" embedded in a third
>party frame, but that may not be the format of the input to the program.
>The input to the program may be KISS frames, WA8DED host mode frames,
>etc. You cannot use "TNC text" as the input to a program that is
>expecting to see KISS frames, on the grounds that somewhere in its
>processing it can handle that data. To handle "TNC text" as the program
>input would require compliance testing to be done on a special version
>of the program with some sort of input "hook" added.
>

I disagree with this. WinAPRS supports both normal TEXT mode TNCs
and KISS mode. Additionally it supports AGWPE, in all 3 cases, the
parsing code converts the "frame" into an internal format before any
"APRS" parsing begins. This is the part the separates out the source
call, the destination call, the digis, etc. Therefore the test suite

from a NORMAL text file test the SAME parser as other modes use. The
difference is I do not have any code to read a "binary" kiss mode
file. Even if you were to have a KISS mode file, you have issues as
to if it has the fill characters inserted or removed.

If a particular program needed to use KISS mode files. I would
expect that author to write his own program to convert normal text
mode files to KISS files for ingesting into the program itself. The
"official" files need to be easily read by anyone with a text editor.

Mark
--

Mark Sproul   http://ecs.rutgers.edu | msproul@jove.rutgers.edu
Manager - Engineering Computing Services | 732-445-3121
Eng B-124-C |

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28. [aprsspec] Re: APRS Compliance

From: David VanHorn <dvanhorn@cedar.net>
Date: Wed, 28 Mar 2001 10:43:03 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3329-2001.03.28-10.00.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Would it be a useful thing, if I was to create a small box that output
APRS-Talk, in both correct and munged form?

I'm thinking an AVR (because I prefer them) Max232 chip, and not much else,
which could be reloaded with new firmware by anyone at near zero cost.

I'd need definitions of properly formatted messages, and I could have it
spit out "canned" errors, as well as randomly bash a byte or two in each
message. It would look like a TNC to the program.

It could even be made to accept commands like a TNC, though that adds
another layer of complication.

Since the first half (correct packets and canned errors) would be
absolutely repeatable, it should make testing very simple.
If the authors feed me any problems they pick up, then I can put that in to
the next rev, as a specific test.

My only question would be rom capacity, might have to add an external
EEPROM if the canned part gets too large, which would take a second layer
of no-cost programming to reload as needed..

If succesful, we could end up with a cheap and repeatable way to verify
compliance.

--
Dave's Engineering Page: http://www.dvanhorn.org
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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29. [aprsspec] Re: APRS Compliance

From: Mark Sproul <msproul@jove.rutgers.edu>
Date: Wed, 28 Mar 2001 10:50:22 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3331-2001.03.28-10.10.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 10:43 AM -0500 3/28/01, David VanHorn wrote:
>Would it be a useful thing, if I was to create a small box that
>output APRS-Talk, in both correct and munged form?
>
>I'm thinking an AVR (because I prefer them) Max232 chip, and not

>much else, which could be reloaded with new firmware by anyone at
>near zero cost.
>
>I'd need definitions of properly formatted messages, and I could
>have it spit out "canned" errors, as well as randomly bash a byte or
>two in each message. It would look like a TNC to the program.

The way I do it is much simpler, I hook 2 computers to each other via
a serial port. On one, I run APRS (Mac or Win) on the other, I use a
terminal program to dump the text file out the serial port. I can
now send any of the 100's of log files that I have (most from
debugging user reported problems) to the program for a real "live"
simulation. I have even done this using 2 serial ports on the same
computer. Either way, it works well, costs nothing, and I can send
what ever files I want.

Mark
--

Mark Sproul   http://ecs.rutgers.edu | msproul@jove.rutgers.edu
Manager - Engineering Computing Services | 732-445-3121
Eng B-124-C |

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

30. [aprsspec] Re: APRS Compliance

From: David VanHorn <dvanhorn@cedar.net>
Date: Wed, 28 Mar 2001 10:56:13 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3332-2001.03.28-10.13.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>The way I do it is much simpler, I hook 2 computers to each other via a
>serial port. On one, I run APRS (Mac or Win) on the other, I use a
>terminal program to dump the text file out the serial port. I can now
>send any of the 100's of log files that I have (most from debugging user
>reported problems) to the program for a real "live" simulation. I have
>even done this using 2 serial ports on the same computer. Either way, it
>works well, costs nothing, and I can send what ever files I want.

Ok, that works for me..
Do we need web space to host these test files?

--
Dave's Engineering Page: http://www.dvanhorn.org
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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31. [aprsspec] Re: APRS Compliance

From: Joel Maslak <jmaslak@antelope.net>
Date: Wed, 28 Mar 2001 09:04:03 -0700 (MST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3333-2001.03.28-10.17.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Mar 2001, David VanHorn wrote:

<Talking about hardware device>
> If succesful, we could end up with a cheap and repeatable way to verify
> compliance.

The concern I have with this:

How do you test the Ham Hud 3 with it's internal packet modem?

Other than this, I really like this idea, and it seems clearly the way to
do it.

I might suggest, though, that you look at the Palm Pilot. Not only could
it send the packets just fine, but it could ask questions like, "I just
sent a message from N7XUC-13 to N7XUC-1. Does the program alert you to
this? <YES/no>". I can't think of any other way to test things like
message reception (yes, it acks, but did it actually receive it?) and
bullettin overwriting (newer bulletins overwrite older ones).

The hard part of this isn't the Palm Pilot programming. The hard part is
the script the program runs.

I propose the following "language" for writing a script. If someone
writes a script using this language, I'll test it.

(I don't know if I got the packet format right)

(note that I quote *'s - since * becomes a wildcard)

```
T Messaging Test
S N7XUC>WIDE\*,APZCRT::N7XUC-1  :Test Message {322
E 60 N7XUC-1>*:N7XUC    :ack{322
P Did the "Test Message" I just sent display properly?
R Yes
R No
C Yes
```

"T" is the command to start a text. One argument is given, the name of
the test (so it can be put on a report).
"S" means "SEND"
"E" means "EXPECT". It takes two parameters, a timeout in seconds and
what it expects.
"P" means "PROMPT". It asks the user a question. It takes one argument,
the question.
"R" means "RESPONSE". This is only valid following a "PROMPT". Each
of these gives a valid response.
"C" manes "CORRECT". This is the answer that SHOULD be given.

If any one of these fails, all the other "S"ends should be sent in that
command and no "E" or "P"s should be processed until the next "T".

--
Joel

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32. [aprsspec] Re: APRS Compliance

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Wed, 28 Mar 2001 10:32:51 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3339-2001.03.28-10.48.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

My guess is that whether the software is accepting data from a TNC, IP, AGWPE or Text file, most
programs will use the same parser engine, and it will be based on the "simple" terminal data formats
found in the APRS Spec.

A text file is portable and easy to transmit, and I suspect most APRS programs have the ability to read
them already.

The issue as I see it is documentable results. I can hang out on second.aprs.net for a month at a time,
 but unless I know what is SUPPOSED to happen I will probably miss some things. The real value of a
test file is the accompanying document that describes what should of happened, i.e. a digi with a "N"
overlay at this coordinate, an object at this coordinate with this symbol and this overlay etc.

I never proposed that the test file should be the ultimate test of APRS compliance. It it would be a
great tool for developers who want to test their software against some sort of known standard.

Regards,

Rich - Wn0x

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33. [aprsspec] Re: APRS Compliance

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Wed, 28 Mar 2001 10:42:29 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3342-2001.03.28-10.58.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

An internet server like aprsserve could stream out a test file for the
PC programs (doesn't help much for things like radios with built-in
APRS, unless you gate it back out to RF).

You could take it a step further and have the internet server send you
message packets telling the operator to test a function of the program
(ie beacon a position) and then send back a message saying that it was
done correctly.

To test sending capabilities from radio's like the D700 you could send a
message to the server saying "I'm about to test ... tell me if this is
properly formated" - then send your packet - then wait for a response
back.

Hopefully what I wrote is coherent ... I woke up waaaay to early this
morning.

-James Jefferson KB0THN

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34. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 28 Mar 2001 12:00:17 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3347-2001.03.28-11.16.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/28/01 9:23 AM Roger Barker (roger@peaksys.co.uk) wrote:

>I don't quite see it like that. If someone is going to make the huge
>effort to produce a "test suite", I would have thought it was better to
>provide a reference set of KISS frames, that can be very easily
>converted into any input format the author may require. A binary
>representation of a frame is a more reliable definition than something
>that has supposedly come out of a TNC2 with a particular set of
>parameters configured.
>
How are these going to be created and edited? To do KISS frames directly,
you would either need to use a hex editor, which would be very tedious,
or write a custom editing engine. Anyone that wanted to look at the test
suite would either have to get the editing program, or go to the trouble
of converting them by hand. Seems like a needlessly complex method.

Since you are proposing to require a conversion routine to go from KISS
to text, why not write and edit in the more easily readable and usable
format, and convert to KISS for those few apps that need it?

Can you describe an instance that has any relavence to the APRS spec,
where the tnc-text would not be representative of the KISS format, and
could not be easily converted?

Steve K4HG

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35. [aprsspec] Re: APRS Compliance

From: David VanHorn <dvanhorn@cedar.net>
Date: Wed, 28 Mar 2001 12:08:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3348-2001.03.28-11.26.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>How do you test the Ham Hud 3 with it's internal packet modem?

Use another TNC to feed it stuff.

>The hard part of this isn't the Palm Pilot programming. The hard part is
>the script the program runs.

It's a platform, but I don't have tools for it.

--
Dave's Engineering Page: http://www.dvanhorn.org
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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36. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 28 Mar 2001 12:32:36 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3352-2001.03.28-11.49.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Mar 2001, David VanHorn wrote about the APRS test files.

> Do we need web space to host these test files?

I began a test file long ago, it takes a lot of work. Because each format
packet should be self explainatory. So that the viewer does not have to
hand analyze each one to see if it is correct or not.

For example a COMPRESSED posit packet might include this text:

 HEADER:POSIT-FORMAT..."This is at the Washington Monumnet"

Thus if its there, it worked. If its not there, its broke.

Just sending a whole bunch of packets is a waste of time, unless they are
"self-proving"... That is where the creativity and effort is involved in
building the test suite...

de WB4APR, Bob

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37. [aprsspec] Re: APRS Compliance

From: David VanHorn <dvanhorn@cedar.net>
Date: Wed, 28 Mar 2001 12:40:47 -0500

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3361-2001.03.28-11.58.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 12:32 PM 3/28/01 -0500, Bob Bruninga wrote:
>On Wed, 28 Mar 2001, David VanHorn wrote about the APRS test files.
>
> > Do we need web space to host these test files?
>
>I began a test file long ago, it takes a lot of work. Because each format
>packet should be self explainatory. So that the viewer does not have to
>hand analyze each one to see if it is correct or not.
>
>For example a COMPRESSED posit packet might include this text:
>
> HEADER:POSIT-FORMAT..."This is at the Washington Monumnet"
>
>Thus if its there, it worked. If its not there, its broke.

That's cool, but you could also have a file of data that is known to create
"problem X". You download it, play it to your system, and debug till not
"problem X".

You can also have large "wads" of correct packets in all their various
forms, which systems must accept without crashing.

--
Dave's Engineering Page: http://www.dvanhorn.org
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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38. [aprsspec] Re: APRS Compliance

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Wed, 28 Mar 2001 11:58:32 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3365-2001.03.28-12.13.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This is where "categories" of APRS devices would be nice. My primary interest has to do with the way objects are displayed on maps, bulletins, watches etc are handled, so I am viewing the test from a slightly different perspective.

It is possible that the HamHud 2100 will have mapping, or the D7000AZ, but for now they deal with a subset of the spec. That doesn't mean they won't be entirely compliant with portions of the spec appropriate for those platforms.

I doubt anyone currently using any APRS software made their decision based on compliance, but instead based their decision on platform and feature set. I don't plan on marketting APRS software with an "APRS COMPLIANT" logo on box. Maybee a picture of Bob?

I am primarliy interested in compliance from a tactical, decision support perspective. A developer should have some idea of how well his software supports this aspect of APRS design specification, and have a tool for determining if there is a problem and fixing it.

If I can't see it, or its in the wrong place, or doesn't accurately represent the situation...

Rich - Wn0x

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39. [aprsspec] Re: APRS Compliance

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Mar 2001 18:58:13 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3366-2001.03.28-12.15.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-3347-2001.03.28-11.16.34--roger#peaksys.co.uk@lists
.tapr.org>, Steve Dimse <k4hg@tapr.org> writes
[snip]
>
>Since you are proposing to require a conversion routine to go from KISS
>to text, why not write and edit in the more easily readable and usable
>format, and convert to KISS for those few apps that need it?

One of the bits of my message you didn't quote said "It's not a problem
for me, because I'm well capable of putting together an input converter
to read the TNC text, and output it as UI KISS frames."

>Can you describe an instance that has any relavence to the APRS spec,
>where the tnc-text would not be representative of the KISS format, and
>could not be easily converted?

An obvious example is when the received frame isn't even a UI frame -
but I think that opens up a whole new can of worms, and the spec doesn't
really handle the situation, so I'll withdraw the comment... ;-)

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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40. [aprsspec] Re: APRS Compliance

From: Timothy J Salo <tjs@tc.umn.edu>
Date: Wed, 28 Mar 2001 12:31:40 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3370-2001.03.28-12.47.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Date: Wed, 28 Mar 2001 12:40:47 -0500
> From: David VanHorn <dvanhorn@cedar.net>
> Subject: [aprsspec] Re: APRS Compliance
>   [...]
> You can also have large "wads" of correct packets in all their various
> forms, which systems must accept without crashing.

You also ought to create large wads of incorrect packets, which systems
ought to accept without crashing. (I believe that this is particularly
true, given the emphasis that has been placed on the use of APRS
in emergency situations.)

-tjs

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41. [aprsspec] Re: APRS Compliance

From: David VanHorn <dvanhorn@cedar.net>
Date: Wed, 28 Mar 2001 13:33:36 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3371-2001.03.28-12.51.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>You also ought to create large wads of incorrect packets, which systems
>ought to accept without crashing. (I believe that this is particularly
>true, given the emphasis that has been placed on the use of APRS
>in emergency situations.)

Yes..
A file full of hosed packets that caused problems in the past would be good
for regression testing.

--
Dave's Engineering Page: http://www.dvanhorn.org
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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42. [aprsspec] Re: APRS Compliance

From: Mark Sproul <msproul@jove.rutgers.edu>
Date: Wed, 28 Mar 2001 15:27:50 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3398-2001.03.28-14.51.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>That's cool, but you could also have a file of data that is known to
>create "problem X". You download it, play it to your system, and
>debug till not "problem X".
>
>You can also have large "wads" of correct packets in all their
>various forms, which systems must accept without crashing.
>

This is exactly what I have been doing for years. I have a large
collection of both good and bad files. In the early years, Bob and I
shared these file and every time he came up with something new, he
would send me a file. I would then work on code until it behaved
properly.

Mark
--

Mark Sproul   http://ecs.rutgers.edu | msproul@jove.rutgers.edu
Manager - Engineering Computing Services | 732-445-3121
Eng B-124-C |

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43. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Wed, 28 Mar 2001 19:47:46 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3436-2001.03.28-19.04.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"Rich Beckwith" wtote:

> > Subject: [aprsspec] APRS Compliance
> >
> > It occurred to me today that testing for APRS compliance would be easier
> > if a "test" file was available. If it were accompanied by a check list,
> > the APRS author could verify the results produced by his software to
> > determine conformance to the spec.

I've seen over 25 postings on this subject.

Yet no-one asks the obvious question.

Who is going to do it?

~2 years ago, in its charter, the APRS-WG clearly outlined a verification suite
along with the certification process for the product claim of "APRS Certified". So
the need was clearly recognized at that time.

I think TAPR owes it to the amateur community either to replace the members on
the WG that resigned and once again jump start the group, or officially terminate
the group. I know for a fact a number of people have volunteered to help out in various
regards with the WG, both to replace the members that resigned as well as to start
documenting other aspects of the protocol. Yet to my knowledge no action has been
taken here.

The problem here is not one of blame, but one of the whole project is in limbo. Nobody
wants to step on anybodies toes, hence the end result is not only that nothing gets done,

but that those that would do something don't want to offend those that did by forming a
new group to manage APRS.

It just seemed so obvious to me all these postings, while good and well intentioned, wouldn't
amount to a hill of beans just as all the posts on the APRSSERVE protocol didn't amount to
anything of substance. It is not the fact that no-one is offering to help, but that the
whole process is in the twilight zone, at best.

Or am I mis-informed here?

-Jeff

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44. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 28 Mar 2001 20:30:49 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3440-2001.03.28-19.47.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/28/01 7:47 PM Jeff King (jeff@aerodata.net) wrote:

>I think TAPR owes it to the amateur community either to replace the
>members on
>the WG that resigned and once again jump start the group, or officially
>terminate
>the group.

If you look closely at the APRS WG charter, you'll see that it is not a
TAPR-owned organization. TAPR has one vote on the committee, no more.
While TAPR was important in the formation of the WG, it cannot accomplish
either of the suggestions you make.

>It just seemed so obvious to me all these postings, while good and well
>intentioned, wouldn't
>amount to a hill of beans just as all the posts on the APRSSERVE protocol
>didn't amount to
>anything of substance. It is not the fact that no-one is offering to help,
>but that the
>whole process is in the twilight zone, at best.
>
I have a slightly different take on why the APRS Internet Protocol went
nowhere (I really prefer everyone stop calling it APRServe protocol). The
APRS Spec exists solely because of the superhuman effort of one person,
Ian Wade, who took the time to understand and document the protocol. I
don't know how much time he spent on this, but I'll bet it over 200
hours.

Note that Ian was never a member of the APRSWG. He came from outside and
made the enormous personal commitment required. When he did so, his
efforts were greatfully accepted by the APRSWG. No one came forward to
make a similar commitment to the Internet documentation project. If
someone had, I believe the results would have been different.

I agree that all this discussion on the test suite is likely to end up
just like the Internet discussion. Regardless of the number of people
that offer to help, there has to be one single person that steps forward
to coordinate all these volunteers (and in many ways more people make it
tougher). In efforts like this, the coordinator ends up putting in far
more work than any of the troops. This person could come from inside the
WG, or outside, it doesn't matter.

To say "The APRS WG should take this task on", or "TAPR should make it
happen" overlooks the reality that both these organizations are composed
of individuals with their own time constraints and priorities. Should Bob
be forced to do it? John Ackermann as president of TAPR (and the
non-voting administrative chair of the WG)? One of the board members of
TAPR picked at random? A callsign picked out of the callbook? Who has the
power to force these people to do it? Even if you could, the results
would be poor, an effort like this must be a labor of love, and so far,
no one seems to be lusting after this task!

If someone did step forward, make a serious proposal to the APRSWG, and
back it up with the requisite effort, I bet they will find a warm
reception, and I wouldn't be surprised if such a person were offered a

spot in the APRS WG.

In case some people don't recall, I'm not a member of the WG any longer,
and I speak only for myself on this issue. I do not have the time or
inclination to take this task on. Perhaps someone out there does...

Steve K4HG

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45. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Wed, 28 Mar 2001 21:37:03 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3450-2001.03.28-20.53.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You missed the point, but I'll try anyways

Steve Dimse wrote:

>
> If you look closely at the APRS WG charter, you'll see that it is not a
> TAPR-owned organization.

It is on the TAPR web page, it was commissioned by the then TAPR president, and
to this day I see TAPR officers taking credit in TAPR's name for the good
work documenting the APRSSPEC.

If I looks like a duck, quacks like a duck and smells like a duck, I call
it a duck regardless of any wiggle room that was written into the charter
that you are quoting to us.

In any case, I am not casting aspersions, just suggesting we call a spade
a spade. Does the WG still exist?

> TAPR has one vote on the committee, no more.
> While TAPR was important in the formation of the WG, it cannot accomplish
> either of the suggestions you make.

Can't or won't? Being TAPR created the WG, I see no reason why they could
not jump start it if they had the will and desire to do this.

> Note that Ian was never a member of the APRSWG. He came from outside and
> made the enormous personal commitment required. When he did so, his
> efforts were greatfully accepted by the APRSWG. No one came forward to
> make a similar commitment to the Internet documentation project. If
> someone had, I believe the results would have been different.

That is not how I understand it.

> I agree that all this discussion on the test suite is likely to end up
> just like the Internet discussion.

OK, at least we agree here, although possible for different reasons.

> To say "The APRS WG should take this task on", or "TAPR should make it
> happen"

When did I say this? You really need to read what I post instead of what you
want to hear. I'm simply stating if the APRS-WG has ceased to exist, that
needs to be stated. It is fairly clear to me that another protocol committee
needs to be formed, yet the existence of this ghost protocol committee is a
potential negative factor. Being you feel that Ian Wade was the only contributing
person of the old WG, and I understand he has resigned, I would think you agree the
WG has ceased to exist. A indeterminate state is not a positive thing and I
know at least one potential motivated volunteer it has discouraged due to them
not wanting to rock the boat.

What I *did* say is TAPR owes a commitment to the amateur community. This

goes beyond any legal loopholes you have cited here. It appears to me
that a validation suite is both wanted and needed and we both agree with
the current situation, this is unlikely to happen. Stepping outside the
legal loopholes, it appears promoting such a thing is within TAPR's mission
plan.

> If someone did step forward, make a serious proposal to the APRSWG, and
> back it up with the requisite effort, I bet they will find a warm
> reception, and I wouldn't be surprised if such a person were offered a
> spot in the APRS WG.

1. Serious proposals have already been made to the WG, with the requisite effort,
and I know you are aware of this. At least one of these persons was a serious player.
Yet nothing apparently came of it. Which leads me to the obvious question of...

2. Does the APRS-WG still exist?

Anyways, just to stay focused, I'm just suggesting that all good projects need
conclusions, and this one does as well. It certainly doesn't mean by officially
acknowledging the disbandment of the existing WG anything will happen... to a
lesser degree I share your cynical attitude, yet the existence of this ghost group
is a discouragment/distraction to the formation of any other group.

-Jeff

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46. [aprsspec] Re: APRS WG

From: K3for@aol.com
Date: Wed, 28 Mar 2001 22:22:32 EST
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3465-2001.03.28-21.39.31--lyris.aprsspec#tapr.org@lists.tapr.org>
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I gotta quote Jeff exactly here or he's going to whine more, although I did
cut out a few lines so he'll retaliate anyway!

>>What I *did* say is TAPR owes a commitment to the amateur community... It
appears to me that a validation suite is both wanted and needed and we both
agree with the current situation, this is unlikely to happen.

>>the existence of this ghost group is a discouragment/distraction to the
formation of any other group.

Does anybody else disagree with these two? A lot of folks have undertaken
the development of software and other initiatives on their own and shared it
with the APRS community without the endorsement, assistance, or participation
of the WG. Most of the time, it was because they *WANTED* to do it by
themselves, and got whatever assistance they needed from email, web sites,
and asked for a few snippets of code where necessary. If there are some of
you out there being held back by this ghost WG, "BOO" on you!

The APRS WG members continue to appear to welcome anyone who seriously starts
to put effort into a project, as long as it doesn't add more to the workload
of what they already still incredibly find the time to devote. And APRS is
still being expanded in a lot of directions. The authors are doing a pretty
good job of certifying and testing their own work (if not for pride then to
keep the complaints down.)

A certification algorithm is a good idea, yes. And, if it were a GREAT idea,
it would have been done by now.

Seriously, is "TAPR" going to say to Bob et. al. and say "Sorry, guys, you're
not doing enough. We're firing you and opening up seats for a new group" ?
Heck, we never even refilled Steve's seat :-)

I think there's plenty of room and goodwill for anyone who wants to pursue an
aspect of APRS that seems weak or needs to be better explored. No one is
stopping anybody, and certaining not the WG.

But, let's take a moment to check out what's been done accomplished recently.
Sprouls fixing up the UHE's and other things self-discovered
Steve's keeping findu running and improving
APR Bob's sat tracker hardware and software

Mike's new release of Palm PocketAPRS
Barker's PSK31 work
HamHUD next generation
TinyTrakker economizing
APRS+SA enhancements
Ev's Beaconet data
Mark's Citadels and other hardware projects
And heck, that's just off the top of my head.

Thanks, everybody - I think we're doing pretty well for a bunch of "amateurs"
!
<pun>

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47. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Wed, 28 Mar 2001 23:19:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3468-2001.03.28-22.36.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/28/01 9:37 PM Jeff King (jeff@aerodata.net) wrote:

>>
>> If you look closely at the APRS WG charter, you'll see that it is not a
>> TAPR-owned organization.
>
>It is on the TAPR web page, it was commissioned by the then TAPR
>president, and
>to this day I see TAPR officers taking credit in TAPR's name for the good
>work documenting the APRSSPEC.
>
>If I looks like a duck, quacks like a duck and smells like a duck, I call
>it a duck regardless of any wiggle room that was written into the charter
>that you are quoting to us.
>
The APRSWG came out of a meeting that was arranged and largely paid for
by TAPR. It was organized by Greg because of an ongoing dispute between
Bob and myself over the future of APRS. The specific issue was ownership
of the protocol, I was fighting for an open spec that would be open to
all programmers. TAPR's interest was in nuturing APRS, making sure it
didn't die because of the dispute.

In forming the working group, TAPR was very careful to avoid both the
appearance and the substance of "taking over" APRS. APRS is Bob's baby,
and he has every right to have a big say in its future. Hence the reason
that he gets two votes, this was one of the least contentious issues we
covered. The working group was set up as an autonomous entity quite
deliberately. This is not wiggle room. TAPR does not have a right to
control the APRS WG, or APRS in general. Only the APRS WG controls the
APRS WG. Sure they get web space and a TAPR mailing list, but so do a lot
of other projects over which TAPR has no control.

When I said that the spec existed "soley" because of the efforts of Ian,
my words were poorly chosen. Many people contributed, and I certainly
wouldn't want to shortchange John for his role of
moderator-with-the-patience-of-Job. What I was trying to convey was that
even with Ian's incredible effort, it took much longer than anyone
expected. Had Ian not been involved, it would never have been a finished
document.

TAPR can certainly claim credit for creating the working group. And just
as a parent gets to claim a share of credit for the achivements of their
offspring, TAPR has right to be proud of the APRS Spec, it wouldn't exist
without them (and without Ian, Bob, TSB, et. al.). But as every parent
knows, children grow up, and you lose control over them. The APRS WG was
born full-grown, and TAPR had no control (other than their single vote)
from that point on.

>In any case, I am not casting aspersions, just suggesting we call a spade
>a spade. Does the WG still exist?
>
AFAIK, yes. Will it ever do anything useful? Personally, I have my
doubts. I do wish they had taken my last recommendation before I resigned
and appointed you to the vacant seat. I don't think the outcome would be

any different, but you'd have an understanding of the difficulty in
getting even this small group of very busy people to do anything.

>> TAPR has one vote on the committee, no more.
>> While TAPR was important in the formation of the WG, it cannot accomplish
>> either of the suggestions you make.
>
>Can't or won't? Being TAPR created the WG, I see no reason why they could
>not jump start it if they had the will and desire to do this.
>
TAPR does not have an official policy on this, I'm speaking for myself,
but I honestly don't see what TAPR can do. As I said, this is a group of
very busy people, none of them have the time to do the leg work of
creating an Internet document or a test suite.
>
>> Note that Ian was never a member of the APRSWG. He came from outside and
>> made the enormous personal commitment required. When he did so, his
>> efforts were greatfully accepted by the APRSWG. No one came forward to
>> make a similar commitment to the Internet documentation project. If
>> someone had, I believe the results would have been different.
>
>That is not how I understand it.
>
Please share...
>
>> To say "The APRS WG should take this task on", or "TAPR should make it
>> happen"
>
>When did I say this? You really need to read what I post instead of what you
>want to hear.

On 3/28/01 7:47 PM Jeff King (jeff@aerodata.net) wrote:

>I think TAPR owes it to the amateur community either to replace the
>members on
>the WG that resigned and once again jump start the group, or officially
>terminate
>the group.

That sure sounds like you are saying TAPR should make his happen by
jumpstarting the group. And you certainly seem to be saying that the APRS
WG should be doing the test suite. My point is that "The APRS WG" is a
group of individuals. AFAIK, none of them have the time or inclination to
do either the internet document or test suite. Is there someone out there
willing to take either of these tasks on? If so, I haven't heard of
them...there are a lot of people that want to help, but none willing to
shoulder the primary responsibility. One needn't be in the APRS WG to do
this, though if someone was putting out the kind of effort Ian did, I
would most definitely attempt to get the board to have our rep nominate
the person for membership in the WG. Further, I would try to convince the
other WG members to vote in favor. However, before I do something like
this, I need to see someone accept the challenge, and do some serious
work.

Over the last year, I've had perhaps 20 people come to me asking to help
code things on findu. For each I've given my source code, accounts on my
system as needed, and support. I've spent a lot of time walking people
through things. Total lines of usable code returned to me: 0. So forgive
me if I'm jaded, but before I throw my recomendation to someone, I want
to see results.

>I'm simply stating if the APRS-WG has ceased to exist, that
>needs to be stated. It is fairly clear to me that another protocol committee
>needs to be formed, yet the existence of this ghost protocol committee is a
>potential negative factor. Being you feel that Ian Wade was the only
>contributing
>person of the old WG, and I understand he has resigned, I would think you
>agree the
>WG has ceased to exist. A indeterminate state is not a positive thing and I
>know at least one potential motivated volunteer it has discouraged due to
>them
>not wanting to rock the boat.
>
If Ian was a WG group member, it happened after I resigned. I don't
believe that was likely, because by the time I left, he was pretty burned
out on working with the group.

>What I *did* say is TAPR owes a commitment to the amateur community. This
>goes beyond any legal loopholes you have cited here. It appears to me

>that a validation suite is both wanted and needed and we both agree with
>the current situation, this is unlikely to happen. Stepping outside the
>legal loopholes, it appears promoting such a thing is within TAPR's mission
>plan.
>
OK, so exactly what would you have TAPR do? We don't have control of the
WG. Even if we did, and we completely restaffed the WG, what would that
accomplish? My most important point in the last post is that there needs
to be another Ian, one that just gets the job done. Not someone that
proposes to get it done, not someone that wants to help, but someone that
does it. And they don't need to be in the APRS WG. If someone does it,
I'll bet the APRS WG supports it. And if they don't, who cares? It will
still be there, useful to and appreciated by a lot of APRSers.
>
>> If someone did step forward, make a serious proposal to the APRSWG, and
>> back it up with the requisite effort, I bet they will find a warm
>> reception, and I wouldn't be surprised if such a person were offered a
>> spot in the APRS WG.
>
>1. Serious proposals have already been made to the WG, with the requisite
>effort,
>and I know you are aware of this. At least one of these persons was a
>serious player.
>Yet nothing apparently came of it. Which leads me to the obvious question
>of...
>
I know of no such effort. Who has produced a start on either the internet
protocol or test suite?

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

48. [aprsspec] Re: APRS WG

From: Jeff King <jeff@aerodata.net>
Date: Wed, 28 Mar 2001 23:32:13 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3471-2001.03.28-22.48.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

K3for@aol.com wrote:
>
> I gotta quote Jeff exactly here or he's going to whine more, although I did
> cut out a few lines so he'll retaliate anyway!

I simply was stating that we have already had a discussion like this before,
and it seemed ashamed to spend so much time on it when we had no outlet
for it. Even Steve Dimse agreed with this. I saw 25+ posts on the need for
a validation algortim, and I was pointing out this simple fact.

> The APRS WG members continue to appear to welcome anyone who seriously starts
> to put effort into a project,

I'm not talking about the past, I'm talking about now.

Does the APRS-WG still exist? It is a simple question. If it doesn't exist, the
a new group should be formed to address the needs the posters are indentify.

Real simple.

> Thanks, everybody - I think we're doing pretty well for a bunch of "amateurs"

Again, the accomplishments of the past was not the point.

-Jeff

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49. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Thu, 29 Mar 2001 01:29:53 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3490-2001.03.29-00.46.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse wrote:
>
> On 3/28/01 9:37 PM Jeff King (jeff@aerodata.net) wrote:

> >If I looks like a duck, quacks like a duck and smells like a duck, I call
> >it a duck regardless of any wiggle room that was written into the charter
> >that you are quoting to us.
> >
> The APRSWG came out of a meeting that was arranged and largely paid for
> by TAPR. It was organized by Greg because of an ongoing dispute between
> Bob and myself over the future of APRS.

Yeap, saw all this.

Also think it was a big mistake and stated so at the time. APRS needs and
needed a firm standards body. I thought it should have been TAPR. I never
agreed with the kissy face approach to it... and I believe
my feelings are being borne out. With any standards body, you need to have
firm control of the protocol. Protocols are NOT open source, they ultimately
have to be dictatorships. Personally, I'd rather see Bob grab it back then
what we have now... a benevolent dictator is far far better then anarchy.

> TAPR can certainly claim credit for creating the working group. And just
> as a parent gets to claim a share of credit for the achivements of their
> offspring, TAPR has right to be proud of the APRS Spec, it wouldn't exist
> without them (and without Ian, Bob, TSB, et. al.). But as every parent
> knows, children grow up, and you lose control over them. The APRS WG was
> born full-grown, and TAPR had no control (other than their single vote)
> from that point on.

OK. Fair enough. Your child grows up, turns 18, and you loose control of
them. Yet when they are 19, you get a call from the hospital or worse yet,
the morgue, do you tell the state they are on their own? No, you help them
back on their feet. This was the role I was suggesting here. I understand
it is not your legal responsibility.... yet clearly the child is sick. Either
sign the death certificate (or stop saying they still exist) or help them
get back to health.

> >In any case, I am not casting aspersions, just suggesting we call a spade
> >a spade. Does the WG still exist?
> >
> AFAIK, yes.

Yet of all the times this has come up, I only recall Bob saying they still
existed. You of course are no longer a member yet still seem to get involved
in everyone of these discussions.

> Will it ever do anything useful? Personally, I have my
> doubts.

Doubts or hopes?

> I do wish they had taken my last recommendation before I resigned
> and appointed you to the vacant seat.

Yes, you mentioned that you had suggested me and Tim Salo, yet I only
heard this from you. I found this strange when I knew of far more qualified
people then myself that had actually volunteered. And they were not accepted.
While I have volunteered 11 separate times over the last 10 years for TAPR
projects (and I am 0/11) this project I did not volunteer for. That is not
to say I wouldn't have accepted if called upon, yet that didn't happen nor
did anyone on the WG acknowledged to me you did what you said you did.

> I don't think the outcome would be
> any different, but you'd have an understanding of the difficulty in
> getting even this small group of very busy people to do anything.

Part of volunteering for any project is having both the skills, interest and time
to contribute. This is something I have taken into account every time I have
volunteered. If someone doesn't have the time to contribute, they should resign.
So if such was the case on the WG as you outline, with mostly disinterested parties
onboard, I would guess you would be correct as one motivated person couldn't make
much of a difference, in particular if they met with resistance.

> >Can't or won't? Being TAPR created the WG, I see no reason why they could
> >not jump start it if they had the will and desire to do this.
> >
> TAPR does not have an official policy on this, I'm speaking for myself,
> but I honestly don't see what TAPR can do.

Force the issue. Mentor the group back to health or sign the death certificate.
Simply follow TAPR's mission plan would be good. Steve Jobs didn't say I told
you so when Apple was in trouble, he came back and helped the company get back
to health.

> As I said, this is a group of
> very busy people, none of them have the time to do the leg work of
> creating an Internet document or a test suite.

Then help them recognize they don't have the time, and resign their seats so those
that volunteered can fill them. Ego's will have to be stroked in that sometimes
recognizing your limitations is a attribute and not a negative.

> >> No one came forward to
> >> make a similar commitment to the Internet documentation project. If
> >> someone had, I believe the results would have been different.
> >
> >That is not how I understand it.
> >
> Please share...

It is not mine to share. I just know otherwise. Being you are not omnipresent,
I fail to see how you can dispute this. You'll just need to take my word on it.

> On 3/28/01 7:47 PM Jeff King (jeff@aerodata.net) wrote:
>
> >I think TAPR owes it to the amateur community either to replace the
> >members on
> >the WG that resigned and once again jump start the group, or officially
> >terminate
> >the group.
>
> That sure sounds like you are saying TAPR should make his happen by
> jumpstarting the group.

Yes, I said the part about jump-starting. I think this is what TAPR did when
the group started, and if the group is sick, it is justified and well within
TAPR's mission plan.

> And you certainly seem to be saying that the APRS
> WG should be doing the test suite.

Did I say that? Don't recall, but this written document stated that as well:
ftp://ftp.tapr.org/aprssig/aprsspec/announcements/APRSWG_charter.pdf
so at worst all I am guilty of here is reading the above.

> My point is that "The APRS WG" is a
> group of individuals. AFAIK, none of them have the time or inclination to
> do either the internet document or test suite.

Yet TAPR and them signed a document stating such. I'm *not* demanding they
do as such, I'm just suggesting some closure here might be of benefit. I
know you like to harp on how no-one volunteers, yet this whole issue
is volatile. Look at the responses so far and how charged it has gotten
so quickly. And for someone to form a alternate group when the "existing"
APRS-WG still is on the books? My spin on it is either fix the existing
WG or clear the decks so another group can be formed.

> Is there someone out there

> willing to take either of these tasks on? If so, I haven't heard of
> them...there are a lot of people that want to help, but none willing to
> shoulder the primary responsibility.

What, you hope if you say that enough it will be true? Sorry, but I know of
at least two well qualified people that volunteered to fill your empty seat
on the WG without a response from the WG.

> However, before I do something like
> this, I need to see someone accept the challenge, and do some serious
> work.

You mean like Bill Diaz? He has put hundreds of hours into debuging and writting
helper applicatiosn (and now AHUB) to fix protocol violations on APRSSERVE.

> >What I *did* say is TAPR owes a commitment to the amateur community. This
> >goes beyond any legal loopholes you have cited here. It appears to me
> >that a validation suite is both wanted and needed and we both agree with
> >the current situation, this is unlikely to happen. Stepping outside the
> >legal loopholes, it appears promoting such a thing is within TAPR's mission
> >plan.
> >
> OK, so exactly what would you have TAPR do?

Force the issue. Mentor the group back to health or sign the death certificate.
Simply follow TAPR's mission plan.

> We don't have control of the
> WG. Even if we did, and we completely restaffed the WG, what would that
> accomplish?

You have already indicated there are people on the WG who don't have time for
it. Just like you wouldn't accept people on the TAPR BOD who don't have time
for it, the same should apply to any group. A volunteer organization is a
very tricky thing.... people typically volunteer for a reason, often it is
wanting to contribute and also receive recognition for their efforts. Managing
the volunteer organization is even harder. As people's "compensation" is not
monetary, you have to recognize people's motivations. Resigning can be a
honorable thing... it doesn't always have to be a resignation in a huff or flaming
certain members of the group. The role of the TAPR leadership should be to promote
a friendly changing of the guard, be it within TAPR or their satellite organizations.

> My most important point in the last post is that there needs
> to be another Ian, one that just gets the job done. Not someone that
> proposes to get it done, not someone that wants to help, but someone that
> does it. And they don't need to be in the APRS WG. If someone does it,
> I'll bet the APRS WG supports it. And if they don't, who cares? It will
> still be there, useful to and appreciated by a lot of APRSers.

I posted a outline of a APRS internet document. I seem to recall, no-one,
including yourself or anyone on the WG, made any comments on it when I first
posted it. So it is not as simple as "building it and they will come" no
matter how many times you say it. Not only do you have the need for people
to volunteer, you also must have the ability to accept newcomers. The patient
is simply sick and a decision has to be made.

> >1. Serious proposals have already been made to the WG, with the requisite
> >effort,
> >and I know you are aware of this. At least one of these persons was a
> >serious player.
> >Yet nothing apparently came of it. Which leads me to the obvious question
> >of...
> >
> I know of no such effort. Who has produced a start on either the internet
> protocol or test suite?

AFILTER was a excellent start along with the discussions, documentation
and volunteer efforts surrounding it. But of course, you knew this and have
chosen to overlook it.

Listen, my point here was not to start a pissing match. My point here was to remind
everyone posting the 25+ comments on the validation suite that unless we clear
the table first, their efforts may be in vain.... something you appear to agree
with.

-Jeff

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50. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 29 Mar 2001 08:22:30 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3530-2001.03.29-07.38.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/29/01 1:29 AM Jeff King (jeff@aerodata.net) wrote:
>
>Yet of all the times this has come up, I only recall Bob saying they still
>existed. You of course are no longer a member yet still seem to get involved
>in everyone of these discussions.
>
I did not resign because I am disinterested in APRS. I resigned because I
felt I had done all I could to help the WG.

>> >> No one came forward to
>> >> make a similar commitment to the Internet documentation project. If
>> >> someone had, I believe the results would have been different.
>> >
>> >That is not how I understand it.
>> Please share...
>It is not mine to share. I just know otherwise. Being you are not
>omnipresent,
>I fail to see how you can dispute this. You'll just need to take my word
>on it.
>
Sorry, I'm not about to do that. I want names, dates, places. Otherwise,
I can only consider this unsubstantiated rumor. If someone had come
forward in the Internet Doc project, I would certainly have expected them
to let me know.

>> And you certainly seem to be saying that the APRS
>> WG should be doing the test suite.
>
>Did I say that? Don't recall, but this written document stated that as well:
>ftp://ftp.tapr.org/aprssig/aprsspec/announcements/APRSWG_charter.pdf
>so at worst all I am guilty of here is reading the above.
>
Actually the test suite was to be developed by the certification
committee, with Bob at the head, not by the working group.

>> Is there someone out there
>> willing to take either of these tasks on? If so, I haven't heard of
>> them...there are a lot of people that want to help, but none willing to
>> shoulder the primary responsibility.
>
>What, you hope if you say that enough it will be true? Sorry, but I know of
>at least two well qualified people that volunteered to fill your empty seat
>on the WG without a response from the WG.
>
I'm not talking about my empty seat. I'm talking about the internet
document and the test suite. Anyone could be on the WG, that takes no
skill and little time.

>> However, before I do something like
>> this, I need to see someone accept the challenge, and do some serious
>> work.
>
>You mean like Bill Diaz? He has put hundreds of hours into debuging and
>writting
>helper applicatiosn (and now AHUB) to fix protocol violations on APRSSERVE.
>
Bill's program is very useful to Windows users, and I'm not putting it
down. But it is hardly the start of an internet protocol document. If
anything, it is more of a rigorous coding of the APRS spec document. And
even if it were directly concerning the Internet protocols, writing a
program and writing a document are not the same thing. APRServe and aprsd
are not "a good start" on the Internet Protocol Document, are they?

>> OK, so exactly what would you have TAPR do?
>

>Force the issue. Mentor the group back to health or sign the death
>certificate.
>Simply follow TAPR's mission plan.
>
Once again, TAPR has one vote out of seven. It can't force anything, and
it isn't the WG's medical examiner.

>> My most important point in the last post is that there needs
>> to be another Ian, one that just gets the job done. Not someone that
>> proposes to get it done, not someone that wants to help, but someone that
>> does it. And they don't need to be in the APRS WG. If someone does it,
>> I'll bet the APRS WG supports it. And if they don't, who cares? It will
>> still be there, useful to and appreciated by a lot of APRSers.
>
>I posted a outline of a APRS internet document. I seem to recall, no-one,
>including yourself or anyone on the WG, made any comments on it when I first
>posted it. So it is not as simple as "building it and they will come" no
>matter how many times you say it. Not only do you have the need for people
>to volunteer, you also must have the ability to accept newcomers. The
>patient
>is simply sick and a decision has to be made.

The only thing I remember you posting was a summary of information you
gained largely from docs I had written. If there was something else you
posted please remind me. In any case, I'm not shy, if there was something
in the doc I felt I should have commented on, I would have.
>
>> >1. Serious proposals have already been made to the WG, with the requisite
>> >effort,
>> >and I know you are aware of this. At least one of these persons was a
>> >serious player.
>> >Yet nothing apparently came of it. Which leads me to the obvious question
>> >of...
>> >
>> I know of no such effort. Who has produced a start on either the internet
>> protocol or test suite?
>
>AFILTER was a excellent start along with the discussions, documentation
>and volunteer efforts surrounding it. But of course, you knew this and have
>chosen to overlook it.
>
Again, AFilter, as good as it is, is an implementation of the APRS spec,
not the Internet spec. The document is the hard part. Technical writing
with clarity is very difficult. I can't do it, from what I seen neither
can you. It is a specialized skill, one that is none-to-common.

Steve K4HG

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51. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 29 Mar 2001 09:40:37 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3536-2001.03.29-08.57.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Mar 2001, Jeff King wrote:

> Yet no-one asks the obvious question.
>
> Who is going to do it?
>
> the APRS-WG clearly outlined a verification suite
> along with the certification process...
>
> ... I know for a fact a number of people have volunteered to help out in
> various regards with the WG..... Yet to my knowledge no action has
> been taken here.

"Volunteering and DOING" are two different things. The APRSwg has noted
over and overagain, that it will welcome submissions of efforts on the
APRServe issues and here on the protocol test-suite..

> It is not the fact that no-one is offering to help, but that the

> whole process is in the twilight zone, at best.
> Or am I mis-informed here?

If someone is willing to "offer to help" then just "do it". Everyone,
knows what needs to be done, how to do it, and what form it should take.
It only takes someone to DO IT. If such a "volunteer" exists, then I am
sure that his efforts will be greatly recognized... and soundly endorsed
by the APRSwg...

de WB4APR, Bob

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52. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 29 Mar 2001 10:19:15 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3548-2001.03.29-09.35.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 29 Mar 2001, Jeff King wrote:

> ...With any standards body, you need to have firm control of the
> protocol.... they ultimately have to be dictatorships. Personally, I'd
> rather see Bob grab it back then what we have now..... anarchy.
> <snip>
> ... I knew of far more qualified peoplet that had actually volunteered.
> And they were not accepted.

Volunteering means *doing something*, not filling a seat at a table.

> Part of volunteering for any project is having both the skills, interest
> and time to contribute...

You left off the most important point... "and doing it". There are
lots of people with the skills, and interest. The only proof of whether
they have the *time* is whether they DO SOMETHING or not.

I would far rather have a group of people that DO, than a committee of
kibitzers who only sit around and argue all day over opiniions and do
nothing...

> If someone doesn't have the time to contribute, they should resign.

Similarly, if someone does not contribute anything, then they should not
expect to be added to the WG..

I think the members of the WG have time to REVIEW and APPROVE an APRS
Internet Spec and an TEST suite! But SOMEONE (I dont understand why this
is so hard to understand) but SOMEONE has to put it on paper...

I agree completely with Steve. Anyone that puts all the APRServe ideas on
paper or puts together a documented protocol test suite would be a PRIME
CANDIDATE for addition to the WG! Such a person would be WELCOME!

> at least two well qualified people that volunteered to fill
> [Steve's] empty seat on the WG without a response from the WG.

Anyone can fill a seat. We want someone that CONTRIBUTES by DOING
SOMETHING. Yes, we have had say a dozen volunteers. If we had accepted
all of them we would have a rooom full of people and still not one single
thing on the table to look at... Duh... whats wrong with this picture?

de WB4APR@amsat.org, Bob

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53. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Thu, 29 Mar 2001 21:34:37 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3699-2001.03.29-20.51.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob & Steve:

Responding to both your posts in one as they are basically the same thing.
I also need to remind both of you that APRS Compliance is not the APRS
internet protocol. The only reason the internet protocol was brought
up was as a example, not the specifics here.

Steve Dimse wrote:

> >It is not mine to share. I just know otherwise. Being you are not
> >omnipresent,
> >I fail to see how you can dispute this. You'll just need to take my word
> >on it.
> >
> Sorry, I'm not about to do that. I want names, dates, places. Otherwise,
> I can only consider this unsubstantiated rumor.

Then that exactly what you will have to do.

> >> However, before I do something like
> >> this, I need to see someone accept the challenge, and do some serious
> >> work.
> >
> >You mean like Bill Diaz? He has put hundreds of hours into debuging and
> >writting
> >helper applicatiosn (and now AHUB) to fix protocol violations on APRSSERVE.
> >
> Bill's program is very useful to Windows users, and I'm not putting it
> down. But it is hardly the start of an internet protocol document.

The thread I was responding to was about APRS compliance, not the internet
protocol document. You, like Bob, are not seeing the contributions people
are making. This was simply a example of a contribution in response to
your claim no serious work is being done. While it may not be to a Steve
Dimse or Bob Bruninga level of competence, the claims both of your keep
making that no-one is stepping forward are specious.

> APRServe and aprsd
> are not "a good start" on the Internet Protocol Document, are they?

Yes, they actually are. Take a look at WA4DSY's web page and the documentation.
It lists all the suggested port numbers and some other useful information that
didn't exist anywhere else. When I put together the outline I posted here some
time back, I used this information in the outline as well as what I was able to
glean off yourself.

http://www.tapr.org/tapr/list-archive/aprsspec/0102/msg00024.html

> Once again, TAPR has one vote out of seven.

I was talking about taking a leadership role for the betterment of packet radio,
I was very clear about this. OK, here is a easier one for you:

Who are the seven votes? Roger Barker asked who the present members of the WG
were some time ago, and met with silence. You apparently know, so who are
they? I say the parrot is dead, what say thee?

> Again, AFilter, as good as it is, is an implementation of the APRS spec,
> not the Internet spec. The document is the hard part. Technical writing
> with clarity is very difficult. I can't do it, from what I seen neither
> can you.

What, did you review the paper(s) I did in my technical writing class or something?
I don't ever recall putting out a paper for publication that you would have seen.
I did send you a outline draft (twice) of a internet spec, which I hoped you would
comment on... is this your comment now? It was never intended to be a publication
quality document, just to focus and stimulate discussion towards a goal, which
it failed to do.

None-the-less, if you recall, the first cut of the APRS-SPEC was a far far cry
from what we ended up with. If you keep seeking perfection, and running those down
that don't meet you level of perfection, who will want to volunteer for the job?

> It is a specialized skill, one that is none-to-common.

Certainly. But in a volunteer organization, you need to take what you can
get. Chasing those away that don't meet up with your standards seems counterproductive,
if indeed your goal is to accomplish something.

Bob Bruninga wrote:
>
> On Thu, 29 Mar 2001, Jeff King wrote:
>
> > ... I knew of far more qualified peoplet that had actually volunteered.
> > And they were not accepted.
>
> Volunteering means *doing something*, not filling a seat at a table.

Yes, it does... speaking of seats, does the APRS-WG still exist (beyond just
yourself)?

> I would far rather have a group of people that DO, than a committee of
> kibitzers who only sit around and argue all day over opiniions and do
> nothing...

Who is doing this? I'm seeing quite a few "do'ers" in the prior thread, which was
my concern. While you may think of them as "kibitzers", I think if this title fits,
it is by no fault of their own.

A process was put into place and this group was created to address that process. If
the process (in the form of the APRS-WG) is defunct or has ceased to exist (like the
parrot), then your right, it is "kibitzing". But how are people to know this unless
you, as the manager of this committee, can be honest with yourself?

IMHO, it seems to me you either fix the process, as was intended, or you simply
state the parrot is dead so we can go get a new parrot. If you watch any Monty
Python, it is a real simple concept to grasp.

> > If someone doesn't have the time to contribute, they should resign.
>
> Similarly, if someone does not contribute anything, then they should not
> expect to be added to the WG..

Certainly. So you feel alot of "non contributors" have volunteered to be on
the WG? Just so we are clear on things, I was stating those that are not
or cannot presently contribute should resign. What matters is now, not any
past accomplishments, although I agree this should be a metric in choosing
someone. But ultimately, the ones seated on the WG need to perform. This may
require "taking a chance" with someone, but if you have a understanding those
that don't perform will be asked to step aside, I don't see this as a big
risk.

> I think the members of the WG have time to REVIEW and APPROVE an APRS
> Internet Spec and an TEST suite! But SOMEONE (I dont understand why this
> is so hard to understand) but SOMEONE has to put it on paper...

If you are having problems understanding it, I suggest you review the WG
charter. Things are spelled out very clearly there. But I think the parrot
is dead. This is what is not being understood. We either need to give the
parrot CPR, or bury it.

> I agree completely with Steve. Anyone that puts all the APRServe ideas on
> paper

That was last month although similar concept.

> or puts together a documented protocol test suite would be a PRIME
> CANDIDATE for addition to the WG! Such a person would be WELCOME!

OK, this is the thread you are responding to. This is what the charter has to
say about that:

---
 6. The Group will put a voluntary APRS certification process in place, to be
 managed by Bob Bruninga with Group oversight. The process will include a
 publicly available validation suite.

So in effect, this can survive the death of the APRS-WG with you still in control.
And that was what I was saying, that a benevolent dictator is far better then anarchy.
I know that Bob Bruninga is not a ghost and I know you have a active interest in
APRS. Your stepping up to the plate through thick and thin. All I am saying here is
that to keep the illusion alive that the WG still exists is counterproductive and
ultimately will cripple progress.

Quick questions, how many additions to the protocol have been made in the last two
years as compared to the prior two years? Get me point now?

> > at least two well qualified people that volunteered to fill
> > [Steve's] empty seat on the WG without a response from the WG.
>
> Anyone can fill a seat. We want someone that CONTRIBUTES by DOING
> SOMETHING. Yes, we have had say a dozen volunteers. If we had accepted
> all of them we would have a rooom full of people and still not one single
> thing on the table to look at... Duh... whats wrong with this picture?

"Duh"?!? Alot is wrong with this attitude. Look at what you just said. A dozen volunteers
have stepped up to the plate and volunteered. The two I know HAVE DONE SOMETHING. Yet you
assume none of them are worth anything. Maybe they are not up to Bob Bruninga or Steve Dimse
standards, but the two I know are real players and know their stuff, and I fully expect the others
are just as good. Yet here you are predicting the failure of these people. This attitude is
what is wrong with this picture. Part of any volunteer groups charter should be to mentor new
blood into a organization. Fact of the matter is, any successful volunteer organization
does this. I'm not seeing this here and it explains alot.

Listen, we can go back and forth on this, but at the end of the day we will be worse
off then when we started. Lets agree to disagree, OK?

To restate and retain focus as to my core thoughts:

I was reminding everyone that a formal process that once existed here no longer
does. Hence the well thought out comments being made about the compliance suite could
be wasted. I suggested that
TAPR might be able to jump start that process, as they once did before....that
doesn't appear to be in the cards. And lacking that or any similar effort, I thought it
proper we declare the parrot dead so that its corpse would not get in the way of a new
group being formed (not that it would.... just the ghost hanging around is a discouragement).

That is it.

-Jeff

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54. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 30 Mar 2001 09:48:13 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3789-2001.03.30-09.04.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

For example of how difficult it is to get user input to the WG,
last week I requested inputs from anyone that is using any of the USER
DEFINED formats in the APRSspec. I was going to make a list that would
help everyone find unused combinations. Not one single response
from the SIG... And yet we know that there are lots out there...

So its not easy being on a WG, where no one submits useful work, and yet
everyone feels happy in complaining that no one else is doing anything...

Just a thought...
Bob

> > On Wed, 28 Mar 2001, Jeff King wrote:

> > > ... I know for a fact a number of people have volunteered to help out in
> > > various regards with the WG..... Yet to my knowledge no action has
> > > been taken here.

> > "Volunteering and DOING" are two different things. The APRSwg has noted
> > over and overagain, that it will welcome submissions of efforts on the
> > APRServe issues and here on the protocol test-suite..

> > > It is not the fact that no-one is offering to help, but that the
> > > whole process is in the twilight zone, at best.
> > > Or am I mis-informed here?

> > If someone is willing to "offer to help" then just "do it". Everyone,
> > knows what needs to be done, how to do it, and what form it should take.
> > It only takes someone to DO IT. If such a "volunteer" exists, then I am
> > sure that his efforts will be greatly recognized... and soundly endorsed
> > by the APRSwg...

> > de WB4APR, Bob

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55. [aprsspec] Re: APRS Compliance (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 30 Mar 2001 13:00:20 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3846-2001.03.30-12.16.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

My appologies to the group. My comments about getting feedback from the
SIG was not intended to be a flame at all. Nor was it meant to condem all
the tremendous effort made by a whole lot of folks!

It was just a microcosmic look at the two simple APRSwg items that I am
trying to get finalized. 1) a list of TOCALLS and 2) a List of USER
defined formats.

Again, my apologies for my choice of words, I was probably subconcsciously
reacting to all the flames pointed my way... while just trying to get
something done...

de WB4APR, Bob

On Fri, 30 Mar 2001, Bob Bruninga wrote:

> For example of how difficult it is to get user input to the WG,
> last week I requested inputs from anyone that is using any of the USER
> DEFINED formats in the APRSspec. I was going to make a list that would
> help everyone find unused combinations. Not one single response
> from the SIG... And yet we know that there are lots out there...
>
> So its not easy being on a WG, where no one submits useful work, and yet
> everyone feels happy in complaining that no one else is doing anything...
>
> Just a thought...
> Bob

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56. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Fri, 30 Mar 2001 13:24:13 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3847-2001.03.30-12.40.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
>
> For example of how difficult it is to get user input to the WG,
> last week I requested inputs from anyone that is using any of the USER
> DEFINED formats in the APRSspec. I was going to make a list that would
> help everyone find unused combinations. Not one single response
> from the SIG... And yet we know that there are lots out there...

I know the feeling.... when I posted my draft outline on the APRS internet
protocol, not a single person on the SIG commented on it. I even forwarded

to one of the past players... not a peep. But it doesn't mean what you are
doing is not needed, you just have to decide in you own mind the path you
want to keep, and stick with it. Your doing the right thing.

Anyways, does the APRS-WG still exist? (as a group comprised of more then
just yourself) Sorry to be so repetitive here, but I have asked this question
twice of you now, with no response.

73

Jeff

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57. [aprsspec] Re: APRS Compliance

From: Carl Littlejohns <carlmailuk@yahoo.co.uk>
Date: Fri, 30 Mar 2001 19:25:12 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-3849-2001.03.30-12.48.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Be of good cheer Bob. You seem to be attempting to solve an UNproblem. :)

(and dont we owe you enough already??)

73Carl
GW0TQM

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58. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 30 Mar 2001 13:55:16 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3850-2001.03.30-13.11.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 30 Mar 2001, Jeff King wrote:

> Anyways, does the APRS-WG still exist? (as a group comprised of more then
> just yourself) Sorry to be so repetitive here, but I have asked this question
> twice of you now, with no response.

Sure. Its members are as posted on the TAPR site.

bob

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59. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Fri, 30 Mar 2001 18:42:41 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3881-2001.03.30-17.59.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
>
> On Fri, 30 Mar 2001, Jeff King wrote:
>
> > Anyways, does the APRS-WG still exist? (as a group comprised of more then
> > just yourself) Sorry to be so repetitive here, but I have asked this question
> > twice of you now, with no response.
>

> Sure. Its members are as posted on the TAPR site.

Sure what? That they still active or that there is a out of date member list on the
TAPR site that still lists members who have long since resigned? Be clear here please.

I wasn't asking if a paper list existed, I was asking if the WG was still viable. Viable
means actively meeting, setting goals, following the charter, having a puraility of
active members. You know, polly parrot is not dead and off pinning for the fjords.

If the WG is now only yourself, I personally think that is not a bad thing. We can get
some clarity and make some decisions. Use (or share the names of) some
of those 12 volunteers to get the APRS compliance process going. Someone needs
to record all the suggestions being made on the SIG... draw a outline up, start
to fit the suggestions into that outline, Identify the testing conditions, ect. I'm sure
more then a few of the 12 people who volunteered to fill the empty seat(s) on the
old WG would be happy to help. Heck, I'd even help a little if I knew I wouldn't be wasting my
time or having to herd cats. But I have taken on another APRS project more suited to my talents
so it would have to be limited. But I don't see this as a huge project anyways....the protocol
document is a great start. You and Mark have some test files. All that is really needed is
some direction and goals. Be it from you under the WG or if the WG has ceased to exist,
from some other project manager. But that could just as easily be you, if you so desire. I'd
vote for you. But I still feel reality needs to be acknowledged so we don't waste our time
serving ghosts.

So, is the APRS-WG viable?

Regardless of the answer to this question, if you and Mark Sproul could make available the
compliance test files both of you indicated you had, that would be a good start of something to
build upon.

73

Jeff

>
> bob

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60. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 30 Mar 2001 22:19:39 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3909-2001.03.30-21.36.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 30 Mar 2001, Jeff King wrote:

> > > Anyways, does the APRS-WG still exist?

> > Sure. Its members are as posted on the TAPR site.
>
> I wasn't asking if a paper list existed, I was asking if the WG was
> still viable. Viable means actively meeting, setting goals, following
> the charter, having a puraility of _active_ members. You know, polly
> parrot is not dead and off pinning for the fjords.

Sure. I just counted 157 Emails in the APRSWG of discussions regarding
all the things we are working on in the last 6 months. All members are

participating.

Bob

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61. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Fri, 30 Mar 2001 23:14:25 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3914-2001.03.30-22.31.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:

>> I was asking if the WG was still viable.

> Sure. I just counted 157 Emails in the APRSWG of discussions regarding
> all the things we are working on in the last 6 months. All members are
> participating.

Good. Can you post a status update on the list then? Who are the present members?
What is the next thing on the agenda? What are all the things you are working
on in the last 6 months? How can people help you out? Would you consider releasing
the test file(s) you mentioned the other day?

Thanks

-Jeff

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62. [aprsspec] Re: APRS Compliance

From: "Cap Pennell" <cap@cruzio.com>
Date: Sat, 31 Mar 2001 08:57:51 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-3996-2001.03.31-11.14.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff, did you mean to ask the WG _secretary_ to do that work for this
mailing list? hi
73, Cap KE6AFE

> -----Original Message-----
> From: Jeff King
> Sent: Friday, March 30, 2001 8:14 PM
> To: APRS Spec Discussion List
>
<snip>
> Good. Can you post a status update on the list then? Who are the
> present members?
> What is the next thing on the agenda? What are all the things you
> are working
> on in the last 6 months? How can people help you out? Would you
> consider releasing
> the test file(s) you mentioned the other day?
>
> Thanks
>
> -Jeff

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63. [aprsspec] Files uploaded to TAPR server now available (APRSINET)

From: Jeff King <jeff@aerodata.net>
Date: Sat, 31 Mar 2001 14:46:35 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4011-2001.03.31-14.03.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The files I uploaded to the TAPR site are now available. (and I
think they have been for some time, just didn't check till today)
They are:

aprsdDOC.htm   (HTML docs for APRSD)
aprsdTCPportfunctions.htm   (Port defines for APRSD)
aprsserve_dcc.html   (Steve's original paper)
inetmsg.html   (APRS messaging)
valid.html   (User validation)
validation.c   (C source code+ msg, which I should have called password.c)

and are located at: ftp://ftp.tapr.org/aprssig/aprsspec/aprstcp/

Nothing new here, but it does get every file in one place, when before they
were spread over various web sites and embedded in peoples e-mails. If anything
is missing, drop it up there. You would send it to:

ftp://ftp.tapr.org/aprssig/upload/

and then drop a note to Larry Keeran, K9ORP @ aprs-lib@tapr.org letting
him know the file is there and where to move it to.

These are the files I referenced in the draft outline I wrote up
last month. It hasn't been moved over yet to a public area, but if you want
to compare the files to the outline it is at:

http://www.tapr.org/tapr/list-archive/aprsspec/0102/msg00024.html

I'm of the mindset that 50% of something is better then 100% of nothing,
you don't need to be a polished technical writer to help here or even
write anything original. In my case I was just a packrat and dumped
what ever files I had collected from other people. It might be useful
to go through some of the Q&A on the groups as well, and drop HTML images
of those messages in. I did briefly, but not exhaustively (the validation
code came from one of the newsgroups).

I know Tim, Bill, Gerry and certainly others have written some fairly good outlines
of their ideas.... you guys might want to go through some of your gems and using Lyris
grab the HTML code and drop it in the FTP area. Note there is no compliance
area at this time.... just the old spec area and the APRSINET area.... but
if you ask Larry he can set that area up. I don't have anything for the
compliance area.

73

-Jeff

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

64. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Sat, 31 Mar 2001 15:06:07 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4013-2001.03.31-14.22.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Cap Pennell wrote:
>
> Jeff, did you mean to ask the WG _secretary_ to do that work for this
> mailing list?

Who is the present WG secretary? As I indicated to Bob, the charter on the TAPR site
is now outdated. While I could ask the present secretary (if there is one), Bob is alive
and kicking and should know the answers to what I asked in the message which you were
replying to. In any case, all the questions I have asked have been on this list, so
one would think all active and interested members of the WG would see them. They were
again:

1. If a status report might be made on the APRS-WG.
2. Who are the present active members?

3. What things has the group been working on in the time period mentioned in
   the e-mails?
4. How can people on this list help out? (small and large things)
5. Would Bob and Mark consider releasing the text compliance files they use
   in their own software? (this would simulate and focus some of the work, and
   would be a good upload to a yet to be created compliance area on the TAPR ftp site)

I guess I didn't consider the above much "work" and even if it was, it was
"work" that only could be accomplished by those on the WG. Seems like a sentence
or two on each item might suffice. Do you have a problem with the questions I
asked? I didn't think they were out of line, although I don't like having to
be so pushy and repetitive here. I'm just of the opinion we need to be honest with
ourselves if we ever hope to get anything accomplished in a timely fashion.

> hi

OK, I believe this is a CW term for humor. So, maybe I need to ask for a
clarification as your question did seem serious to me.

Did I misunderstand your question?

Thanks

Jeff

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

65. [aprsspec] Re: APRS Compliance

From: "Cap Pennell" <cap@cruzio.com>
Date: Sat, 31 Mar 2001 13:04:28 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4017-2001.03.31-15.20.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Jeff King
> Sent: Saturday, March 31, 2001 12:06 PM
>
> Cap Pennell wrote:
> >
> > Jeff, did you mean to ask the WG _secretary_ to do that work for this
> > mailing list?
>
> Who is the present WG secretary?

The WG charter and protocol (aprs101.pdf) both list Stan WA1LOU as the WG
secretary. As secretary of my local amateur radio club (a voluntary
position), I find that I'm often asked to perform many tasks that nobody
else wants to donate the time and effort to perform.

<snip>
> I guess I didn't consider the above much "work" and even if it was, it was
> "work" that only could be accomplished by those on the WG. Seems
> like a sentence
> or two on each item might suffice. Do you have a problem with the
> questions I
> asked?

No. I was only attempting to make light of the idea that you were asking
someone (Bob) to perform a new set of tasks when the discussion here has
recently been about whether there's someone who is willing and able to
donate the time to perform similar work.

>
> > hi
>
> OK, I believe this is a CW term for humor. So, maybe I need to ask for a
> clarification as your question did seem serious to me.

Yes. Perhaps I should have used <GRIN> instead of "hi" as the mode we're
using here is email instead of CW. Please forgive the colloquialism.

>
> Did I misunderstand your question?

A bit. I was only half-serious. The other half was just trying to inject a

bit of ("smart-aleck") humour. Sorry.

> Thanks
>
> Jeff

73 ("Best Wishes!" in CW), Cap KE6AFE

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66. [aprsspec] Re: APRS Compliance

From: Jeff King <jeff@aerodata.net>
Date: Sat, 31 Mar 2001 17:31:17 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4022-2001.03.31-16.48.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Cap Pennell wrote:

> > Who is the present WG secretary?

> The WG charter and protocol (aprs101.pdf) both list Stan WA1LOU as the WG
> secretary. As secretary of my local amateur radio club (a voluntary
> position), I find that I'm often asked to perform many tasks that nobody
> else wants to donate the time and effort to perform.

I wasn't asking Stan to do any work nor am I assuming a document that is not current is accurate. I'm sure he and other members, if they still are active members of the WG read this list and are capable of speaking up if they have something to add.

> <snip>
> > I guess I didn't consider the above much "work" and even if it was, it was
> > "work" that only could be accomplished by those on the WG. Seems
> > like a sentence
> > or two on each item might suffice. Do you have a problem with the
> > questions I
> > asked?

> No. I was only attempting to make light of the idea that you were asking
> someone (Bob) to perform a new set of tasks when the discussion here has
> recently been about whether there's someone who is willing and able to
> donate the time to perform similar work.

This are the tasks I suggested:

1. If a status report might be made on the APRS-WG.
2. Who are the present active members?
3. What things has the group been working on in the time period mentioned in the e-mails?
4. How can people on this list help out? (small and large things)
5. Would Bob and Mark consider releasing the text compliance files they use in their own software? (this would simulate and focus some of the work, and would be a good upload to a yet to be created compliance area on the TAPR ftp site)

Now, the question I have for you is how can a newcomer or someone not on the WG address these tasks? While Bob may not be the one to answer these mostly simple questions, I would think you would have to agree someone outside the WG could not, correct? Are these not fair requests?

>> Did I misunderstand your question?

> A bit. I was only half-serious. The other half was just trying to inject a
> bit of ("smart-aleck") humour. Sorry.

Hey, I am guilty of this as well. No need to be sorry, it should be me. It is good to step back. But I tried to tone down my dead parrot skit rhetoric in the last go around so maybe I was a bit too serious.   ....   ;-)

73

Jeff

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67. [aprsspec] Re: APRS Compliance

From: "Cap Pennell" <cap@cruzio.com>
Date: Sat, 31 Mar 2001 14:59:47 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4023-2001.03.31-17.16.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff WB8WKA wrote:
<snip>
> Now, the question I have for you is how can a newcomer or someone
> not on the WG address
> these tasks?

They can't.

> While Bob may not be the one to answer these mostly
> simple questions, I would
> think you would have to agree someone outside the WG could not,
> correct? Are these not fair requests?

Correct. I think they are fair requests. If someone from the WG can, and
wants to, donate the time and effort to produce the answers to those
questions and send them to this mailing list, they will.

<--... ...-->, Cap KE6AFE

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68. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 31 Mar 2001 19:02:31 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4027-2001.03.31-18.18.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 30 Mar 2001, Jeff King wrote:

> Good. Can you post a status update on the list then? Who are the present members?
> What is the next thing on the agenda? What are all the things you are working
> on in the last 6 months? How can people help you out? Would you consider releasing
> the test file(s) you mentioned the other day?

Sure, if I could find it. I suspect it was on a previous PC that has long
since crashed and burned. Maybe Mark still has his?

Bob

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April 2001

Original source file: aprsspec.0104
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0104

1. [aprsspec] Re: APRS Compliance

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 1 Apr 2001 10:31:46 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4154-2001.04.01-09.49.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 31 Mar 2001, Jeff King wrote:

> 2. Who are the present active members?

The current members ar:
     John Ackermann <jra@febo.com>
     Bob Bruninga <bruninga@nadn.navy.mil>,
     Keith Sproul <ksproul@rci.rutgers.edu>,
     Mark Sproul <msproul@apmail.ap.org>,
     Brent Hildebrand <BHildebrand@earthlink.net>,
     Mike Musick <mcmusick@anet-stl.com>
     Stan Horzepa
     Steve Dimse - Resigned

     Roger Barker, (UIview) invited but declined due to other priorities
     Dale Heatherington (APRSd) invited but declined

Bob

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2. [aprsspec] Re: APRS Compliance

From: MLSproul <msproul@arn.net>
Date: Sun, 1 Apr 2001 13:48:13 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4191-2001.04.01-14.04.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I am in the process of making some text compliance files.These will
be a series of files and will probably be released as each is
completed and verified.

Maury
--

_____
M. L. "Maury" Sproul, PE | 806-354-0306
Amarillo, TX
msproul@arn.net
W5UGQ

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3. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Sun, 1 Apr 2001 15:19:11 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4201-2001.04.01-14.35.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 4/1/01 10:31 AM Bob Bruninga (bruninga@usna.edu) wrote:

>   John Ackermann <jra@febo.com>
>   Bob Bruninga <bruninga@nadn.navy.mil>,
>   Keith Sproul <ksproul@rci.rutgers.edu>,

>   Mark Sproul <msproul@apmail.ap.org>,
>   Brent Hildebrand <BHildebrand@earthlink.net>,
>   Mike Musick <mcmusick@anet-stl.com>
>   Stan Horzepa
>   Steve Dimse - Resigned
>
There is also a TAPR slot, occupied by Greg Jones.

Steve K4HG

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4. [aprsspec] Current Members

From: Keith Sproul <ksproul@vger.rutgers.edu>
Date: Sun, 1 Apr 2001 15:32:39 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4207-2001.04.01-14.52.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mark's Sproul address is:

        msproul@jove.rutgers.edu

The address listed for Keith Sproul is okay, but I would prefer:

        ksproul@vger.rutgers.edu

Keith

--
Keith Sproul   Ham Radio WU2Z
ksproul@vger.rutgers.edu   732 821-4828

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5. [aprsspec] Re: APRS Compliance

From: John Ackermann   N8UR <jra@febo.com>
Date: Sun, 01 Apr 2001 17:09:25 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-4232-2001.04.01-16.26.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

--On Sunday, April 01, 2001 3:19 PM -0400 Steve Dimse <k4hg@tapr.org> wrote:

> On 4/1/01 10:31 AM Bob Bruninga (bruninga@usna.edu) wrote:
>
>>   John Ackermann <jra@febo.com>
>>   Bob Bruninga <bruninga@nadn.navy.mil>,
>>   Keith Sproul <ksproul@rci.rutgers.edu>,
>>   Mark Sproul <msproul@apmail.ap.org>,
>>   Brent Hildebrand <BHildebrand@earthlink.net>,
>>   Mike Musick <mcmusick@anet-stl.com>
>>   Stan Horzepa
>>   Steve Dimse - Resigned
>>
> There is also a TAPR slot, occupied by Greg Jones.
>
> Steve K4HG

Greg resigned as the TAPR representative. I remain in the non-voting
moderator slot, and have been speaking, but not voting, for TAPR in the
interim. TAPR will be appointing a new representative to replace Greg.

John

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6. [aprsspec] APRS(tm) protocol allows for BEACONet variant

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sat, 07 Apr 2001 17:18:09 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5499-2001.04.07-16.36.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Now that the dust has settled on the "Protocol Compliance" thread (did
anyone actually volunteer to do anything? <grin>), I wanted to be a "man
of my word" and move the discussion of the BEACONet protocol here (at
least the one that started on TAPR's APRS(tm) listserve).

I'll get right to the point: for those who choose to take the time to
understand and research before expressing an opinion, they will find
that BEACONet fits quite nicely into the existing APRS(tm) paradigm.

The BEACONet system was developed in such a way as to function in
compliance with the APRS(tm) AltNET concept. Here's ALTNET's are:
http://www.dididahdahdidit.com/text/altnets.txt

  As an aside...APRSdos *will* decode BEACONet transmissions
  simply by invoking the following command: CONTROLS-FILTERS-OTHER
  to ON. This is noted at:
  http://www.dididahdahdidit.com/text/protocol.txt

  Additionally, UI-View works for both BEACONet and APRS operation
  without needing to invoke/revoke any filtering.

According to the APRS Protocol Specification 1.0.1 (a 3MB file at
ftp://ftp.tapr.org/aprssig/aprsspec/spec/aprs101/APRS101.pdf):
Page 23 of 128...
"Generic APRS   APRS uses the following generic beacon-style
  Destination   destination addresses:
    Addresses   AIR* ALL*   AP*   BEACON CQ*   GPS*   DF*
                DGPS* DRILL* DX*   ID*   JAVA*   MAIL* MICE*
                QST* QTH*   RTCM* SKY*   SPACE* SPC*   SYM*
                TEL* TEST* TLM* WX*   ZIP*
                The asterisk is a wildcard, allowing the addresss to
                be extended (up to a total of 6 alphanumeric
                characters)."
Page 25 of 128...
"ALTERNATE NETS Any other destination address not included in
                 the specific generic list or the other categories
                 mentioned above may be used in ALTERNATE NETS
                 (ALTNETs) by groups of individuals for special
                 purposes."

A typical BEACONet frame looks like this:
W2EV>HY1G02-15:[FN03XD] w2ev@arrl.net
     ^^^^^^ ^^
     |
     This makes the frame look like an ALTNET to APRS software.

So...BEACONet stands as it originally was...an application of UI-Frame
technology that:
* can use APRS(tm) software (but doesn't have to)
* operates within the APRS(tm) spec as an ALTNET
* allows for experimentation and expansion on that spec without
  destroying it

If you think of APRS(tm) as being "Major League Baseball", then think of
BEACONet as being "the farm club". Just don't go "calling up" any of
the stuff we're developing without being prepared to trade us back
enough to make it worth our while. :o)

Back to having fun...ya know...the eta-Aquarids meteor shower is just
around the corner...and the spring/summer Tropo season is forming;
anyone want to actually generate some RF? :o)

With a smile and a wink,
Ev Tupis, W2EV

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7. [aprsspec] APRS TOCALL-SSID Help, please

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sat, 07 Apr 2001 19:03:37 -0400

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5505-2001.04.07-18.22.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
According to the APRS Protocol Specification:
(pg 23/128):  "In all of these cases, the Destination Address SSID may
specify a generic APRS digipeater path."

(pg 25&26/128): A chart describing the "Generic Digipeating" noted
above.

Yet, when I launch a frame which includes this information, it is
ignored by all of the APRS digi's around me (even though I'm LOS to at
least three WIDEn-N digis).

My APRS frame looks like this:
W2AAA-2>APW248-3:=4310.21N/0 . . .
            ^
            This infers WIDE3-3 from the protocol spec

Am I missing something about the use of this function?

Ev, W2EV

---
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```

8. [aprsspec] Re: APRS TOCALL-SSID Help, please

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sat, 07 Apr 2001 19:07:59 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5508-2001.04.07-18.26.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Correction...

My APRS frame looks like this:
W2AAA-2>APW248-3:=4310.21N/0 . . .
              ^
              This infers WIDE3-3 from the protocol spec

Yet, this is ignored by the WIDEn-N digi's in my area.  Am I overlooking
something about the use of this function?

Ev, W2EV

---
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```

9. [aprsspec] Re: APRS(tm) protocol allows for BEACONet variant (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 7 Apr 2001 21:13:07 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5520-2001.04.07-20.29.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Your use of different TOCALLS for everyone in BeacoNET is not a fixed
string, thus it is not an ALTnet.  Thus no Kenwood D7, or D700 user can
listen in because the ALTnet which  they might set iaw  the APRSspec won't
match but one user at a time.  Thus, you exclude probably 10,000 users
from monitoring your Beacon Net while traveling.  Such exclusion to save
one byte seems awfully drastic.  More comments at end...

On Sat, 7 Apr 2001, Ev Tupis wrote:

> The BEACONet system was developed in such a way as to function in
> compliance with the APRS(tm) AltNET concept.  Here's ALTNET's are:
> http://www.dididahdahdidit.com/text/altnets.txt

> According to the APRS Protocol Specification 1.0.1 (a 3MB file at
> ftp://ftp.tapr.org/aprssig/aprsspec/spec/aprs101/APRS101.pdf):
> Page 25 of 128...
> "ALTERNATE NETS  Any other destination address not included in
>                  the specific generic list or the other categories
>                  mentioned above may be used in ALTERNATE NETS
```

> (ALTNETs) by groups of individuals for special
> purposes."

> A typical BEACONet frame looks like this:
> W2EV>HY1G02-15:[FN03XD] w2ev@arrl.net
> ^^^^^^ ^^
> This makes the frame look like an ALTNET to APRS software.

Yes, but only people who set their ALTnet to "HY1G02" will see it. If
any letter changes, then it is a different ALTnet and will not be decoded
by anyone operating IAW the Spec.

Yes, someone can set thier ALTnet to HY1G02, but he will only receive
packets from that station only. Not anyone else in Beacon net unless
the station is identical in Power, Antenna, HAAT, Direction and Gain.

But there is no way for an ALTnet compliant APRS station to receive a
packet from any other combination, without changing their entry.. Or
disabling ALTnets entirely.

Bob

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10. [aprsspec] Re: APRS TOCALL-SSID Help, please

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 7 Apr 2001 21:15:45 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5521-2001.04.07-20.32.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This SSID DIgipeating feature was put in the Spec for the next generation
of APRS (so that everything would be backward compatible when we moved to
APRS Phase III.
It allows HOPS of up to 7 HOPS using the WideN-N protocol, but saves 7
bytes per packet by eliminating the DIGI field entirely... and only using
the SSID as the number of hops.

I think only DIGIned and UIdigi and the other new digi codes support it
yet. The Kenwood D700 digi mode also does... (hummh, I forget. Ill have
to look up how to do this)... Bob

Apr 2001, Ev Tupis wrote:

> According to the APRS Protocol Specification:
> (pg 23/128): "In all of these cases, the Destination Address SSID may
> specify a generic APRS digipeater path."

> Yet, when I launch a frame which includes this information, it is
> ignored by all of the APRS digi's around me (even though I'm LOS to at
> least three WIDEn-N digis).
>
> My APRS frame looks like this:
> W2AAA-2>APW248-3:=4310.21N/0 . . .
> ^
> This infers WIDE3-3 from the protocol spec
>
> Am I missing something about the use of this function?

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11. [aprsspec] Re: APRS TOCALL-SSID Help, please

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sat, 07 Apr 2001 22:04:56 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>

Message-ID: <LYR11589-5523-2001.04.07-21.23.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
> This SSID DIgipeating feature was put in the Spec for the next
> generation of APRS (so that everything would be backward
> compatible when we moved to APRS Phase III.

Gotcha. That explains why no one processed it. What's the plan for
this feature? One would think that it ought to be supported by
stand-alone digi's if it's going to be effective. Is there a movement
afoot to get TNC firmware to support it?

Ev, W2EV

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12. [aprsspec] Re: APRS(tm) protocol allows for BEACONet variant

From: Jeff King <jeff@aerodata.net>
Date: Sat, 07 Apr 2001 22:31:10 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5524-2001.04.07-21.48.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev Tupis wrote:
>
> Now that the dust has settled on the "Protocol Compliance" thread (did
> anyone actually volunteer to do anything? <grin>),

Ev:

Yes, at least according to what I saw on here, 12 people had volunteered.
However, it appears volunteers were not what was required (even though the old
WG had requested them.... go figure?).   Two people
(outside of these volunteers) were asked to join the WG, and they both declined.
Hence the spots still remain open and no direction or next step (at least published)
has been set. So your guess is as good as mine.

It has been said, that if you do something, and submit it to the WG (this list?)
some action will be taken. It has not been my personal experience this is the case, hence
my feelings they had ceased to exist as a viable body. Granted, my contribution had been
minor, but I am reluctant to make major contributions (to a spec document) with no
feedback or in a vacuum, as had been suggested the current mechanism is. I suspect lacking
such direction or feedback, the previous statement would apply to others as well.

My impression here is to just do what you want.... if you get sufficient user support it will
be adopted via assimilation. A spec document is not a spec document without a compliance
mechanism. So, your best bet here is just to get some user support for your BEACONNet
extension, and write your own spec. Approach some of the authors requesting support
for it (most seem more then happy to do this) and have at it. As to the entrenched incumbents
such as Kenwood, I suspect if you get sufficient interest, they will adopt it. Not sure
if BeaconNet is compatible with DX Clusters, but if not, you might consider this. The DX'ers,
as a group, are not afraid to spend money. This is a language Kenwood understands.

Good luck

Jeff

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13. [aprsspec] Re: APRS TOCALL-SSID Help, please

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 7 Apr 2001 23:52:30 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5530-2001.04.07-23.09.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 7 Apr 2001, Ev Tupis wrote:

> Bob Bruninga wrote:

> > This SSID DIgipeating feature was put in the Spec for the next
> > generation of APRS (so that everything would be backward
> > compatible when we moved to APRS Phase III.
>
> Gotcha. That explains why no one processed it. What's the plan for
> this feature? One would think that it ought to be supported by
> stand-alone digi's if it's going to be effective. Is there a movement
> afoot to get TNC firmware to support it?

SO far we have only seen Digined and UIdigi and maybe some others? No, no
big movement. For a closed net where someone has hundreds of mobiles and
only a few digis, it really shortens packets and allows more users.

bob

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14. [aprsspec] A BeaconNet idea...

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 00:14:02 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5535-2001.04.07-23.31.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In trying to find an APRS compliant protocol to do all the BeaconNet needs
while still being SPEC compliant (and receivable on a Kenwood), I came up
with this:

W2EV-xx>CQxxxx,HOP2-2:>GG##ggXX........

It gives at least 7 bytes worth of special BEACONet information and
the total cost is only ONE (1) more byte than the existing BeaconNet
format. Here is how:

* FROM call SSID for one byte (1 of 16) or 2 bytes (1 of 10 & 1 of 5)
* In the TOcall, you can use 4 bytes (1 of 36 each)
* In the GRID square report, you get 2 bytes
   The first one (the TABLE or OVERLAY character can be 1 of 36
   The second one (the ICON) can be one of about 90

These 7 or 8 bytes can convey a lot of info...
This is the preferred Gridsquare report format as written in the spec.

So I think that this format would give you a very powerful format for
BEACONet packets that could be received by anyone, this includes:

1) Newbees who have no clue how APRS or anything else works, but if they
tune to BEAOCNnet, they will see something without having to know "how" to
set up their APRS software...

2) Kenwood mobile operators (remember the D700 tunes 6m, 2m, 220, 440, 900
and 1296 bands)...

3) Kenwood backpackers and QRP operators with only their HT's...

Although it would be nice to use ICONs that are meaningful, I don't care
at all if you use any of the 90 icon symbols to mean anything you want in
BEACONet. That is the kind of flexibiilty that APRS should be able to
afford... And there are some un-used ICON definitions that we could
possibility consider if you find that defining one or two more might make
things really neat...

And the OVERLAY characters can be applied to ANY ICON, so it can be
considered as a completelly independent byte... again, though, it would
be nice if it made visual sense in most cases...

Anyway, just an idea to let you get lots of info in a standardized way,
into the shortest packet and still be receivable on all APRS stations.

 de WB4APR@amsat.org, Bob

```
---
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```

15. [aprsspec] D7/D700 and ALTNET [was:APRS(tm) Protocol Spec/BEACONet thing]

```
From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 00:21:52 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5536-2001.04.07-23.40.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
Wait wait.  Please don't draw conclusions prematurely by inferring that
a one byte space-saving is the sole reason behind the desire for
BEACONet frames to be treated as an ALTNET.  That is not correct.  There
are *many* reasons for doing so (I'll address them in a future eMail if
this is a point that needs clarifying).  Let's take one thing at a time.

Your reply hit the following topics:
* Kenwood D7 and D700 don't have the ability to disable ALTNET
  filtering and therefore would be blind to this variation of the
  BEACONet protocol
* A BEACONet TO-Call of "HY1G02-15" is a specific ALTNET unto itself
  and you said, "... only people who set their ALTnet to
  "HY1G02" will see it.  If any letter changes, then it is a
  different ALTnet and will not be decoded by anyone operating IAW
  the Spec."

The flippant response to the second item would be "gee...you built-in
the ability to turn off ALTNET filtering into APRSdos, why didn't you
tell Kenwood to do the same thing?" :o)  <-really intended as humor, not
a flame...it's really nice that the filter-off function is in APRSdos.

  - you know that APRSdos *will* decode BEACONet by turning
    off filters, and so will UI-View (natively, without the need
    to mess with anything).  WinAPRS won't . . . but that's because
    it doesn't appear to follow the ALTNET spec at all...period.
  - since the BEACONet TO-Call information appears to work on two
    major APRS software titles, the discussion turns to the Kenwoods

*** The rest of this includes interests of the BEACONet community ***
*** and is a bit lengthy.  Please read it to get a better insight ***
*** to the interests that are being addressed, rather than simply ***
*** assuming that APRS(tm) interests are one-size-fits-all.       ***
*** In a nutshell the text below will discuss:                    ***
***  + The dilema of "backwards compatibility"                   ***
***    - A contrast of APRS and BEACONet digipeating needs as an  ***
***      example of a tough decision that is related to the dilema***
***  + The need to include certain information in the TO-Field    ***
***    in order to meet the needs of the BEACONet community       ***
***    - A very good reason it should be in the TO-Field, from    ***
***      perspective of BEACONet operation                        ***

As for the D7 and D700 implementation... this is a variation of a larger
issue: how much "backward compatibility" does one offer when developing
new systems?  This is a tough one to put one's arms around...especially
when the "old stuff" is still being actively marketed.  There is a fine
line between a manageable leap in technology and an unmanagable one (one
wonders if OS/2 would have been more successful, had IBM sat on it until
now -- but I digress).  :-)

This is the same issue that had to be delt with when determining just
how important it was to use *only* TRACEn-N digipeating (exclusively) in
the BEACONet service.  That would mean that only Kantronics KPC-model
TNC's with ROM 8.2 or above could be used for stand-alone digi's (though
I've been told that the new UIDIGI firmware may support it now).

Given that tracing RF paths is a core BEACONet need, the decision was
made to do just that.  We couldn't take the risk of someone putting a
non-call substituting, channel-flooding alias on the frequency (imagine
even an inadvertant WIDE,WIDE,WIDE in a world-wide collision
domain...ouch!).

So...back to the limitations of the D7 and D700.  If BEACONet-ers used
the (very valid) variation of the protocol that started with CQ, instead
of HY, I'm hearing that they would be able to decode the packet
correctly (even though [GR##ID] is marked as obsolete in the spec?)?

Then the question becomes...how important is "HY" to a BEACONet frame
```

(W2EV>HY1G02-15:[FN03XD] w2ev@arrl.net)? HY is a frequency designator.
H=HF (3-30 MHz) and Y=the 26th segment from 3-MHz (the scale runs
0,A,B,C,D,...Z) which is 28-MHz -- in this case. Launching a BEACONet
frame as CQ1G02-15 is fully allowed in the APRS spec (and allowed in the
BEACONet spec), but there would be a loss of "band-of-origination"
information.

Here is the thought-tree on this topic:
* The long range hope is that BEACONet will take on a following
  of it's own with an audience that may not necessarily be APRSers
  today (DXers and contesters)
* It would be advantageous to establish an APRServ-like Internet
  service in the near future (maybe AHost?)
* There is no frequency-of-origination flag in the APRS protocol
  specification and no way to seperate frames by frequency once
  they are collected by APRServ...so all frames go on the same map
* A screen full of icons on a map means very little to the BEACONet
  service if band-information can't be parsed out (hmmm...which band
  is responsible for the propagation? <smile>)

At this stage of BEACONet experimentation...I'd say that the answer is
"yes", it *is* important to embed frequency in *every* transmission;
even if that leaves "10,000" D7/D700 users out of the loop for decoding
the transmissions of others. They bought their transceivers for
APRS...which is where they will continue to work.

Given that the TO-FIELD goes out with 7-bytes consumed whether you use
them all or only "CQ" (that's the AX.25 spec), putting it there seems to
make a ton of sense.

Of course, this all may change by the time this BEACONet stuff either
matures or fizzles out entirely.

Well, I've started and stopped this eMail several times and it's now
midnight. I hope it didn't come though as too choppy. I'm going to
bed. The twins wake up at 7 without regard as to how late I stay up.
:o)) Thanks to anyone who decided to take the time to read through this
eMail and understand the interests being addressed.

Ev

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16. [aprsspec] The moving target [was:A BeaconNet idea...]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 01:36:29 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5542-2001.04.07-00.55.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga said:
> In trying to find an APRS compliant protocol to do all the
> BeaconNet needs while still being SPEC compliant (and
> receivable on a Kenwood), I came up with this:
>
> W2EV-xx>CQxxxx,HOP2-2:>GG##ggXX........

((by the way, before I Bob's email in full perspective ... neither
"band of origination" nor "antenna pointing vector" information appears
to be contained in the suggestion above...so it hardly begins to meet
"all the BeacoNet needs"))

Bob is sharing a note with the listserve that he shared with me
privately last week -- and I replied to. I'm saddened that he did so,
as I'd have preferred to not air this topic to the list. Unfortunately,
the note can't go unreplied to.

My reply to him included "human engineering" issues that included *two*
times during the development of BEACONet in which I attempted to keep up
with a spec that changed just as I reached a publication deadline and
the discouragement that it engendered.

  - "Space Mode" used to exist in APRS-dom. When invoked, the grid
    was placed in the To-Field to save transmission time (hmmm...the
    same reasons for BEACONet's wanting to do it that way).

Just as I was going to roll this out for PropNET (as BEACONet
was called back then)...the spec changed to antiquate it in
favor of [GG##gg] in the comment field.

- I quickly re-wrote the article that I was working on (QST of
November 1999) and resubmitted it for publication. This was
no small task...as anyone who has ever written an article
knows...and inadvertantly left out a very important item that
proved to be devastating (FULLDUP ON for for Meteor Mode in a
manually-configured WinAPRS Leonids station) as a result of the
rush to rewrite. Bob later wrote to the listserve something
about "maybe next time the meteor effort could be better done".
arghhhhhhh!

Discouraged from the work that had to be redone, I took some
time to "regroup" around the new concept of [GG##gg] and
continued developing.

- [GG##gg] is no longer in favor, but it is now >GG##ggxxx....
Oh...my...gawd! Guess what? Watch out for May's QST...it's
already gone to press. (I'm leaving out a lot of detail of
my conversation with him and the wg around getting them to
not abandon [GG##gg], by the way)

I've done my best to follow this APRS moving target, but at some point
I've got to say "enough is enough". BEACONet is a cousin to the APRS
service. The APRS spec shows [GG##gg] as obsolete, and the BEACONet
service has adopted it. Get over it for now and move on.

If the APRS service wants BEACONet to be fully compliant, then someone
is going to have to work to address the issues of the BEACONet service
-- as a user of the BEACONet service...not through the eyes of the APRS
service as the two services have different needs.

Until then, authors of software that decodes UI-frame packets are
encouraged to build-in BEACONet parsing of To-Field information and reap
the rewards of marketing to a whole new group of UI-Frame packet users
to which the APRS service does not cater.

Evhen Tupis, W2EV

I'm going to bed...maybe the morning light will melt the grumpies away.
:o)

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17. [aprsspec] Re: D7/D700 and ALTNET [was:APRS(tm) Protocol Spec/BEACONet thing]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 08:39:09 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5588-2001.04.08-07.56.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Apr 2001, Ev Tupis wrote:

> Please don't draw conclusions that a one byte space-saving is the sole
> reason behind the desire for BEACONet frames to be treated as an ALTNET.

I have shown how you can fit all of the same data in a fully APRS spec
compliant packet and it only takes one more byte, so the conclusion seems
inescapable?

> - since the BEACONet TO-Call information appears to work on two
> major APRS software titles, the discussion turns to the Kenwoods

Yes, two out of say a dozen?

> *** In a nutshell the text below will discuss: ***
> *** + The dilema of "backwards compatibility" ***
> *** + The need to include certain information in the TO-Field ***

I see no reason why it must be in the TOfield and make the packet
non-APRS compliant when there are other places to put it.

> For the D7 and D700... how much "backward compatibility" do [we need?]

> If BEACONet.. started with CQ, instead of HY,... they would be able to
> decode the packet...   [but loose all "frequency Band information"]
> Then the question becomes...how important is "HY" to a BEACONet frame
> (W2EV>HY1G02-15:[FN03XD] w2ev@arrl.net)? HY is a frequency designator.

put it in one of the other 8 "free" bytes I pointed out in my proposed
solution. There are all kinds of places to put it...

> * There is no frequency-of-origination flag in the APRS protocol

Each packet has as many free bytes as you want. One can put anything in
any of the free bytes in any APRS packet. Anyone can decode them to mean
anything they want... without violating the spec. I am all for adding
such a designation for this application, but just not in a place that
makes the packets non-compliant.

> * A screen full of icons on a map means very little to the BEACONet
>   service if band-information can't be parsed out (hmmm...which band

The BAND information and sub-band information should go in the ICON and
OVERLAY characters.   Then a quick glance at any BEACONnet map would
instantly convey that information.   Here's how:

Choose as many ICONS as you need for all of the bands (there are 90).
THen use the 36 overlay characters for the sub-band. ANy author then that
supports BeeacoNET would parse out BAND and FREQ info from those bytes and
do anything you want with them. The ICONS dont have to make sense. Its
just that those bytes are "free" to use for conveying this information.

* At this stage of BEACONet experimentation...I'd say that the answer is
* "yes", it *is* important to embed frequency in *every* transmission;

And I agree 200%. Just dont put it in a place where it violates the spec
and makes BEACONet non-compliant with APRS and locks out thousands of
users.

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18. [aprsspec] Re: The moving target [was:A BeaconNet idea...]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 08:57:12 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5596-2001.04.08-08.14.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Apr 2001, Ev Tupis wrote:

> > In trying to find an APRS compliant protocol to do all the
> > BeaconNet needs while still being SPEC compliant (and
> > receivable on a Kenwood), [Bob] came up with this:
> >
> > W2EV-xx>CQxxxx,HOP2-2:>GG##ggXX........

> Neither "band of origination" nor "antenna pointing vector" information
> appears to be contained in the suggestion above...so it hardly begins to
> meet "all the BeacoNet needs"))

Huh? There are 8 bytes you can do anything with! and I listed them.
in my original proposal:

   xx   in the FROM call
   xxxx in the TOCALL
   XX   in the Grid format. <== This is where I would put FRQ/BAND info

> Bob is sharing a note with the listserve that he shared with me
> privately last week -- and I replied to. I'm saddened that he did so,
> as I'd have preferred to not air this topic to the list....

I thought we brought this to the APRSspec list for open discussion?
It was a message I sent to you. Not one you sent to me. So I dont think
it is any violation of etiquette to re-post my suggested format here...

Ev, you seem to think I am working against you. Far from it. I LOVE the

BeacoNET concept and am more than willing to do anything I can to make it
popular and a great service. To that end, I am trying to help make sure
it is decodable by everyone, not just the few people who go out and get
special software...

You mentioned the QST article as the main reason why you dont want to
change. Yet only 2 authors currently support BeaconNET (and I am one
of them). This raises some interesting points if you did change to an
APRS compliant format at some time in the future:

1) Both those authors would release a new version overnight. End of
problem.

2) ALL other existing APRS software would instantly be BEACOnet capable...
End of problem.

3) All Kenwood mobiles would be able to monitor BeacoNET anytime,
anywhere... End of problem.

Bob

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19. [aprsspec] Other BEACONet interests to factor [was:D7/D700 and ALTNET [was:APRS(tm) Protocol]]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 09:35:58 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5602-2001.04.08-08.54.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
> > Please don't draw conclusions that a one byte space-saving is
> > the sole reason behind the desire for BEACONet frames to be
> > treated as an ALTNET.
>
> I have shown how you can fit all of the same data in a fully APRS
> spec compliant packet and it only takes one more byte, so the
> conclusion seems inescapable?

ok...I'll explain it again...

If one is truly interested in finding a good solution to your dilema,
then one will need to take the time to understand the broader BEACONet
interests and address them too. As with any system, items become
interrelated. One cannot simply offer a solution to one item and walk
away, as it may introduce other problems elsewhere. That is the case
here.

An additional related item is described here:
http://go.to/BEACONet | Information | Contest and RadioSport Use

As one reads over the information, key-in on the last item in the
information chart. BEACONet enjoys an alias called RFONLY (although it
isn't expressed within that text...the concept is). It is an explicit
instruction to not IGate (remember...it's *not* about privacy). UI-View
processes the alias correctly and APRSdos doesn't IGate (yet another
reason why both of these titles are supported in the BEACONet world).

By taking BEACONet out of the world of the ALTNET something else
happens:
* RFONLY becomes an issue because now all other APRS programs can
  decode it a BEACONet frame...and they don't recognize the RFONLY
  alias

The astute observer will have two comments:
    "No one can guarantee that some third party won't IGate a
     signal anyway, even with the alias"
    "It's not the contesters' fault if someone else relays the
     information"

As for the first statement...while that is true, the chances of it
happening are _significantly_ reduced by using a system that is
primarily supported by products that behave as needed (an analogy would

be the fact that I can write software to digipeat a frame, even if it
does not contain a digipeat alias...but no one does).

As for the second statement...Dan Henderson (Contest Manager at the
ARRL) has come right out and said "the use of packet is prohibited"
(exact quote) in ARRL VHF contests. It took _considerable_ effort to
educate him that DXCluster Spots are different than is simplex,
non-digipeated UI-Frame packet. Even then, I'm not sure he truly got
it. I'm not willing to introduce other software that ignores RFONLY,
given that history.

So...back to my original statement:
> > Please don't draw conclusions that a one byte space-saving is
> > the sole reason behind the desire for BEACONet frames to be
> > treated as an ALTNET.

Here's another. Help us to find a win-win solution.

By the way...I'm subscribed to the list...there's no need to cc: the
thread to me directly, too.

Ev

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20. [aprsspec] Re: The moving target [was:A BeaconNet idea...]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 09:48:32 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5603-2001.04.08-09.05.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Apr 2001, Ev Tupis wrote:

Bob Suggested:
> > W2EV-xx>CQxxxx,HOP2-2:>GG##ggXX.Z......
>
> Neither "band of origination" nor "antenna pointing vector" information
> appears to be contained in the suggestion above...

The "XX" in the GRID format above is for ICON and OVERLAY character. I
would assign your FREQ BANDS to ICONS as shown below, and then use the 36
overlay characters for your frequency sub band information...

BANDS	FREQS	ICON
X	3-30 KHz	The diamond
L	30-300Khz	The Lighthouse
M	.3-3 MHz	The tall Radio Antenna
H	3-30 MHz	The existing HF ICON
V	30-300MHz	A VHF Icon (Ill find one)
U	.3-3 GHz	The existing QTH with a Beam
S	3-30 GHz	The existing dish antenna
E	30-300THz	The alternate "E" Icon.

Then not only do your packets contain this detailed info, but they also
visually convey this information at a glance...

You could put the Beam Heading in the SSID. or add one character. (The "Z"
I added above)
But if you reserved the TO_CALL SSID for SSID routing, then you could
actually shorten ALL BeaconNET packets by 7 bytes! You would be
eliminating the "HOP2-2" bytes entirely (saving 7 bytes) and then use the
SSID (-2) as originally intended for routing. The disaadvantage of this
is that the KPC-3 does not support SSID routing yet, but UIview does (or
could).

That is why I hate to mess up SSID routing which you could use in the
future to great advantage by using the SSID now just to save one byte.
So I wouild probably suggest that you add one character for beam
direction. (With the potential of saving 6 in the future)...

bob

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21. [aprsspec] Overlooked Interests - Free Bytes? [was:D7/D700 and ALTNET [was:APRS(tm) Protocol Spec/BEACONet]]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 09:53:45 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5604-2001.04.08-09.12.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> > - since the BEACONet TO-Call information appears to work on two
> > major APRS software titles, the discussion turns to the Kenwoods
>
> Yes, two out of say a dozen?

The interest was to find a software title that would run on most
people's computers, that would meet the interests of the BEACONet
community. These two titles will take care of 90% of the worlds
computers (DOS and Windows). I'm not sure of your point...but the
interest is being met.

The next point that you made keyed back in on the use of the "HY"
frequency designator, rather than "CQ". First...let me say that I'm
giving some serious thought to that...given the potential of embedding
the frequency into the icon overlay (I've got more exploration to do,
though). But another statement makes me think that you are still
overlooking another BEACONet interest:

> > * There is no frequency-of-origination flag in the APRS protocol
>
> Each packet has as many free bytes as you want. One can put
> anything in any of the free bytes in any APRS packet. Anyone
> can decode them to mean anything they want... without violating
> the spec. I am all for adding such a designation for this
> application, but just not in a place that makes the packets
> non-compliant.

There is a BEACONet interest in assuring the shortest human-readable
frame. If you are inferring that there are 256 "free bytes" to choose
from, then you are missing the point.

In fact...the *only* "free bytes" that exist in an AX.25 packet frame
are the ones in the To-Field and any unused bytes in path aliases. All
others consume space. The *only* "free bytes" in a BEACONet comment
field are the "[ ]" around the grid...and we included them only because
APRSdos requires the "["! (see...there can be concessions <smile>).

Have I missed something?

Ev

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22. [aprsspec] Re: The moving target [was:A BeaconNet idea...]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 10:05:20 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5605-2001.04.08-09.23.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> > Bob is sharing a note with the listserve that he shared with me
> > privately last week -- and I replied to. I'm saddened that he did so,
> > as I'd have preferred to not air this topic to the list....
>
> I thought we brought this to the APRSspec list for open discussion?

Actually, I didn't mean to infer any violation of etiquette...no offense
was taken. I intended to simply say "we've already talked about this
issue and it has been taken into consideration (for further
research)...why is it out there again?"...It's probably simply a
difference of style, nothing more.

I also hope that others don't think this is an adversarial <sp?> thing.
Nothing could be further from the truth. I'm committed to the BEACONet
thing, and am endebted to others for their work and to you for your
interest in it.

I'm simply making sure that the interests of the BEACONet community are
addressed in any future modifications, if they are made...that's all.

Ev

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23. [aprsspec] More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 12:07:55 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5622-2001.04.08-11.26.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm going to parrot back what I understand about your suggestion:

> W2EV-xx>CQxxxx,HOP2-2:>GG##ggXX.Z

```
W2EV-##>CQnpah,HOP2-2:>GG##ggIO.V
     ||   ||||         ||||||||||
     ||   ||||         |||||||||+- Beam Vector-+
     ||   ||||         ||||||||+-- what's this?+--2-bytes for V maybe?
     ||   ||||         |||||||+--- Overlay for the icon (27 needed)
     ||   ||||         ||||||+---- Icon (8 needed)
     ||   ||||         ++++++----- 6-character grid
     ||   |||+-- H.A.A.T.
     ||   ||+--- Antenna Contribution (element count or dBd)
     ||   |+----- Power Output (1mW to 32MW)
     ||   +------ Network Personality (Digi, Bridge, Gate, etc)
     ++---------- SSID to allow for multiple occurances of same call
```

Now...to be clear...your suggestion wastes three bytes entirely:
CQ conveys nothing of use to BEACONet
TO-Call -SSID goes unused...but is still transmitted as a byte.

I like the icon idea, but there is another interest being driven here,
too. Because BEACONet is a "network sniffer for UI networks" it is just
as important to know the network personality visually, as it is to know
the band of origination. Since "n" exists in the BEACONet protocol, it
was hoped to use that as the driver for the Icon, rather than frequency
of operation. I'm going to play with the icon idea a bit to see what I
get (there may be another variation to the theme that could work).

In case anyone cares..."n" is described in the BEACONet protocol
specification on the website: http://go.to/BEACONet | Information |
Protocol.

Other issues still remain. I've spelled them out in other eMails and
would be interested in your thoughts on addressing them as part of the
package.

By the way...SSID routing is useless to BEACONet...WIDEn-N doesn't allow
the tracing that we really need. There is no advantage to is...it will
always be a wasted byte.

Ev

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24. [aprsspec] Re: Other BEACONet interests to factor [was:D7/D700 and ALTNET [was:APRS(tm) Protocol]]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 16:15:24 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5653-2001.04.08-15.32.10--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

On Sun, 8 Apr 2001, Ev Tupis wrote:

> BEACONet enjoys an alias called RFONLY...
> In taking BEACONet out of the ALTNET world something else happens:
> * RFONLY becomes an issue because now all other APRS programs can
>   decode a BEACONet frame...and they don't recognize the RFONLY
>   alias
>
> The astute observer will have two comments:
>   "No one can guarantee that some third party won't IGate a
>   signal anyway, even with the alias"
>   "It's not the contesters' fault if someone else relays the
>   information"

This is a good point. But I am a little confused.

If the non-standard ALTNET construct allows you to be isolated from any
other inadvertant APRS software from IGATING your packets, then that would
seem to be sufficient in itself to solve the problem of RFONLY routing.
So why then is the RFONLY alias needed? (I do think RFONLY alias is also
a very good idea too.)

Does this mean that all BEACONet packets have the RFONLY alias in them at
the cost of 7 bytes per packet?

You do have a very valid point about not wanting conventional APRS
software in use by a non-fully-understanding user to link your BEACONet
packets worldwide back to RF... Lemme think about that some.... I'd
like to find a single bit somewhere that can do that much more
efficiently...

Lemme think about this...

bob

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25. [aprsspec] Re: Other BEACONet interests to factor [was:D7/D700 and ALTNET [was:APRS(tm) Protocol]]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 16:34:59 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5659-2001.04.08-15.53.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> > BEACONet enjoys an alias called RFONLY...
> > In taking BEACONet out of the ALTNET world something else happens:
> > * RFONLY becomes an issue because now all other APRS programs can
> >   decode a BEACONet frame...and they don't recognize the RFONLY
> >   alias
> >
> > The astute observer will have two comments:
> >   "No one can guarantee that some third party won't IGate a
> >   signal anyway, even with the alias"
> >   "It's not the contesters' fault if someone else relays the
> >   information"
>
> This is a good point. But I am a little confused.

RFONLY is invoked only by stations that are engaged in VHF Contests.
Otherwise, "24/7" BEACONet stations may launch frames with either HOPn-N
or nothing. RFONLY is an option to satisfy the needs of the
Contesting/DX Chasing BEACONet community, not a reqirement for all
BEACONet-ers.

Ev

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26. [aprsspec] Re: More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 16:52:24 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5680-2001.04.08-16.09.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Apr 2001, Ev Tupis wrote:

> By the way...SSID routing is useless to BEACONet...WIDEn-N doesn't allow
> the tracing that we really need. There is no advantage to is...it will
> always be a wasted byte.

Hummh... conversly, I am beginning to see it as a neat future
for BEACONet.   Here is how:

1) Using -n instead of HOPn-N saves 7 bytes in every single packet
2) This does not need to be a WIDEn-N implementatin. On BEACONet, you
    can define that all such -n packets will be digipeated as TRACEn
    so that they include their path.
3) Since UIview uses KISS mode, ROger could code this into UIvew
    overnight. ALso, since the UIDIGI firmware also supports SSID
    routing, I am sure that its author would be happy to also make this
    possible. UI-DIGI roms will fit in any of the millions of old TAPR-2
    CLONES. ALso, any old 286 PC with any TNC and DIGI-NED software
    also supports SSID routing...
4) We can also include the RFONLY flag in a single bit. Here's how:

SSID ROUTING FOR BEACON NET:

   if SSID is 0 then no digipeating
   if SSID is 1 to N then digipeat and add digipeaters MYCALL (TRACEn)
   if SSID is 10 to 1N then subtract 10 and digipeat as above
      but consider this packet as an RFONLY packet.

Thus BEACONet can save 7 bytes in every packet,
It retains an RFONLY flag
It retains a TRACEn-N mechanism
It LEADS the APRS community in using this valuable routing method
It will allow TAPR-2 CLONE TNC's using UI-DIGI firmware to be used
   for beacon net without the expense of KPC-3's for everyone...

This would be a long term goal. It sort of depends on how many Beaconnet
users use KPC-3's, how manuy use TAPR-2 clones, and how many use UIVIEW?
I admit it would be a transition, but until the transition was complete,
then HOPn-N could continue to be used... and still be compatible.

Actually it saves 14 bytes if you cnosider that you no longer need the
RFONLY alias either...

Bob

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27. [aprsspec] Re: More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 17:37:58 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5692-2001.04.08-16.56.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> > By the way...SSID routing is useless to BEACONet...WIDEn-N
> > doesn't allow the tracing that we really need. There is no
> > advantage to is...it will always be a wasted byte.
>
> Hummh... conversly, I am beginning to see it as a neat future
> for BEACONet.   Here is how:
>
> 1) Using -n instead of HOPn-N saves 7 bytes in every single packet

> 2) This does not need to be a WIDEn-N implementatin.

But Bob...the APRS Protocol Specification (page 26 of 128) expressly
says that ToCall SSID routing is WIDEn-N and WIDE. You're not proposing
that BEACONet deliberately tool-up in opposition to the spec, are you?
;-)

Chuckling just a little,
Ev

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28. [aprsspec] Re: More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 17:52:28 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5693-2001.04.08-17.09.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Apr 2001, Ev Tupis wrote:

> > Hummh... conversly, I am beginning to see it as a neat future
> > for BEACONet.   Here is how:
> >
> > 1) Using -n instead of HOPn-N saves 7 bytes in every single packet
> > 2) This does not need to be a WIDEn-N implementatin.
>
> But Bob...the APRS Protocol Specification (page 26 of 128) expressly
> says that ToCall SSID routing is WIDEn-N and WIDE. You're not proposing
> that BEACONet deliberately tool-up in opposition to the spec, are you?
> ;-)

I thought you might noctice that. But the difference is that these
packets are still decodable by everyone. This modification to what is in
the spec is a non-exclusive "enhancement". In ANY WIDEn-N digi, it has
alwasys been a SYSOP perogative to enable path tracing in a closed net if
he likes...

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29. [aprsspec] More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]

From: kbrown@powerhouseproductions.com (Kevin Brown)
Date: Sun, 8 Apr 2001 16:59:47 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5694-2001.04.08-17.19.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Maybe I'm the only one...but since this thread appears to be between the two
of you...any chance you could actually email one another direct? I haven't
seen anyone else reply/interject on this subject..

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30. [aprsspec] Re: Other BEACONet interests to factor [was:D7/D700 and ALTNET [was:APRS(tm) Protocol]]

From: Jeff King <jeff@aerodata.net>
Date: Sun, 08 Apr 2001 18:03:40 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5695-2001.04.08-17.20.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev Tupis wrote:
>

> > > BEACONet enjoys an alias called RFONLY...
clip
> > This is a good point. But I am a little confused.
>
> RFONLY is invoked only by stations that are engaged in VHF Contests.

FYI, AFILTER and I believe UI-View both support "NOGATE" already which
effectively does the same thing. (keeps the RF gateway from sending
the frame on to the internet).

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31. [aprsspec] Re: More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Apr 2001 18:37:10 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5698-2001.04.08-17.53.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Apr 2001, Kevin Brown wrote:

> Maybe I'm the only one...but since this thread appears to be between the two
> of you...any chance you could actually email one another direct? I haven't
> seen anyone else reply/interject on this subject..

Interesting. Ev was acused of developing BEACONet protocols without open
public discussion of the protocol and thus it evolved as non APRS
compatible. He brought it here to have a public discussion of how
BEACONet can or cannot fit into the APRS protocol. I thought that was
what this list was for?

Just hit DEL key if you are disinterested...

Bob

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32. [aprsspec] NMEA 0183 checksum spec

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sun, 8 Apr 2001 19:11:27 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5713-2001.04.08-19.28.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can someone please point me in the direction of a document describing
the NMEA 0183 checksum and how it is calculated? Sample code?

-James Jefferson

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33. [aprsspec] Here's how NMEA 0183 checksum is calculated

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sun, 8 Apr 2001 20:50:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5719-2001.04.08-21.07.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(from Garmin's website - and verified by numerous other sources)
Q. How is the checksum calculated in NMEA 0183?

A. The checksum is the 8-bit exclusive OR (no start or stop bits) of all
characters in the sentence, including the "," delimiters, between -- but
not including -- the "$" and "*" delimiters.

The hexadecimal value of the most significant and least significant 4
bits of the result are converted to two ASCII characters (0-9, A-F) for
transmission. The most significant character is transmitted first

---
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34. [aprsspec] Cause and Effect...from the Horses Mouth

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 08 Apr 2001 22:35:15 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5724-2001.04.08-21.53.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Interesting. Ev was acused of developing BEACONet protocols
> without open public discussion of the protocol and thus it
> evolved as non APRS compatible. He brought it here to have
> a public discussion of how BEACONet can or cannot fit into
> the APRS protocol. I thought that was what this list was for?
>
> Just hit DEL key if you are disinterested...

* The BEACONet protocol was opened to public scrutiny on TAPR's
  PropNET/BEACONet listserve. It was also discussed with Bob B.
  during development. It has never been "without open public
  discussion". Check the list archives. The topic is there.

* Since the "Cause" is inaccurate, how can the "effect" of "thus it
  evolved as non APRS compatible" be defended? Never the less, it
  was said ...
  - From an APRS perspective (which is what this seems to be), the
    BEACONet system operates as an ALTNET (to the letter of the APRS
    protocol spec). Ok...so maybe it's a *bunch* of ALTNET's, but it
    is fully compliant with the spec on ALTNETs.

* I brought the discussion here because I wanted to clear the general
  APRS listserve of it (it had nothing to do with general APRS). I
  never said that it was here to see how it "can or cannot fit into
  the APRS protocol".

Now...for a recap of the thread up to this point...this discussion was
engaged because Kenwood radios don't have a function to disable ALTNET
filters...therefore BEACONet was proclaimed by Bob as "non APRS
compatible".

A secondary discussion ensued as to how to reformat the BEACONet frame
to allow Kenwood to decode them...but then the tables turned. Bob found
out that APRS(tm) protocols, network topologies and procedures were not
BEACONet(tm) compatible (I *hate* when that happens). :o)

Bob's giving this further thought.

I think that pretty much sums it up so far. :o) This thread can
continue on or off list...it makes no nevermind to me. I'm learning
some good things to *maybe* incorporate in the next revision of the
BEACONet protocol spec and lurking folks are being given an insight into
APRS's cousin that thay may not have previously had.

And again for the record...there is no personal affront intended by me
nor taken by me with any of this discussion. The BEACONet concept was
based on experimentation...that's what we're doing. A year from now,
the experiment may be over and all that may be left is my satisfaction
of "doing" rather than "dreaming"...then again... :o))

Ev
http://go.to/BEACONet

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35. [aprsspec] Non-exclusive Enhancement? [was: More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Mon, 09 Apr 2001 07:01:07 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5794-2001.04.09-06.19.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

After suggesting that TOCALL SSID routing be setup to use TRACEn-N
instead of WIDEn-N and Wide, Bob Bruninga wrote:

> > But Bob...the APRS Protocol Specification (page 26 of 128)
> > expressly says that ToCall SSID routing is WIDEn-N and WIDE.
> > You're not proposing that BEACONet deliberately tool-up in
> > opposition to the spec, are you? ;-)
>
> I thought you might noctice that. But the difference is that
> these packets are still decodable by everyone. This modification
> to what is in the spec is a non-exclusive "enhancement". In ANY
> WIDEn-N digi, it has alwasys been a SYSOP perogative to enable
> path tracing in a closed net if he likes...

I've searched the APRS Protocol Specification on the key words of
"exclusive", "enhance" and "modif"ication and come up dry. Where can I
get more information on the topic of "modifications that are allowed
because they are considered non-exclusive enhancementes"?

Ev

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36. [aprsspec] Re: More BEACONet interests [was:The moving target [was:A BeaconNet idea...]]

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Mon, 9 Apr 2001 21:42:26 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-5930-2001.04.09-20.54.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I for one... want to see this kind of exchange ... especially since it
involves APRS SPEC... if I get a vote.. I say EV and Bob... please
continue... Each exchange furthers my knowledge about the spec.....

ALOHA
AH6LS

> Maybe I'm the only one...but since this thread appears to be between the
> two
> > of you...any chance you could actually email one another direct? I
> haven't
> > seen anyone else reply/interject on this subject..
>
>

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37. [aprsspec] From APRSSIG - proposal for modified object format

From: Mike Musick <mcmusick@anet-stl.com>
Date: Wed, 11 Apr 2001 14:50:53 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6309-2001.04.11-15.33.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Recap: Jeff Brenton suggested that we look at a way to create objects
that expire. This week's rash of springtime storms underscored a
serious need for self-deleting objects to automatically clear the
display of obsolete, superceded or otherwise out-of-date objects.

The proposed protocol consists of adding a expiration time to the
comments field, like so:

   ;CELL1   *092345z4903.50N\07201.75W[088/036/EXP=0090

This, of course, says that the CELL1 wall cloud object moving east at
36 Knots expires 90 minutes after 2345z on the 9th. Field is in

minutes and must have all four digits; "9999" minutes is 81 minutes
shy of one week, so this gives us a good practical range.

The user interface default value should be relatively short - 30 to
60 minutes is a good start for discussion. There is no default in the
on-air packet - the value is always specific. "/EXP=0000" is
immediate expiration and is illegal; an object with no expiration
should not have the /EXP= parameter.

This has maximum backwards compatibility (i.e., doesn't break
anything) and is human-readable when it isn't supported by the
receiving program.

By expressing the time as a time-out value rather than an end time
means a lot less work for the parser. We've already parsed the
092345z, so the expire day and time is simply 092345z + 90 minutes.

What we need now is to hear from anyone who might think of a
compatibility problem we haven't seen yet so we can get hopefully get
quick agreement to "just do it".

   ...mike/N0QBF

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38. [aprsspec] [aprssig] Re: From APRSSIG - proposal for modified object format

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Wed, 11 Apr 2001 16:01:27 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6325-2001.04.11-16.16.51--lyris.aprsspec#tapr.org@lists.tapr.org>
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Is it necessary to have "/EXP="? I don't believe anything else uses 4 zeros "0000" so you may be able
to tack it on the back 088/036/0000 of the report.   It appears the other extensions use 3 zeros "000"
at this location i.e. bearing/number/range/quality. Check for a "0" instead of a "/".

On the other hand "/EXP=" is pretty easy to search for.

What about "/E=" which is similar in format to the "/A=" parameter for altitude?

Rich - Wn0x

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39. [aprsspec] Re: From APRSSIG - proposal for modified object format

From: Mike Musick <mcmusick@anet-stl.com>
Date: Wed, 11 Apr 2001 16:08:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6331-2001.04.11-16.24.40--lyris.aprsspec#tapr.org@lists.tapr.org>
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At 4:24 PM -0400 4/11/01, Bob Bruninga wrote:

>Only remaining question is whether the /EXP= is floating. I assume so.
>and all 5 of those charactetrs must be an exact match...

Unless there's a really pressing reason not to, I'd answer "yes".

   ...mike

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40. [aprsspec] Re: [aprssig] Re: From APRSSIG - proposal for modified object format

From: "Jeff Brenton" <ka9vnv@dididahdahdidit.com>
Date: Thu, 12 Apr 2001 1:47:39
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6423-2001.04.12-02.04.39--lyris.aprsspec#tapr.org@lists.tapr.org>
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> what about "/E="

Short, consistent, to the point...

And "/E=xxxx" leaves two extra characters for the comment field.

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41. [aprsspec] Re: [aprssig] Re: From APRSSIG - proposal for modified object format

From: Ian Wade <ian.wade@netro.co.uk>
Date: Thu, 12 Apr 2001 08:46:40 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6425-2001.04.12-03.04.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR23375-6423-2001.04.12-02.04.39--ian.wade#netro.co.uk@list
s.tapr.org>, Jeff Brenton <ka9vnv@dididahdahdidit.com> writes
>> what about "/E="
>
>Short, consistent, to the point...
>
>And "/E=xxxx" leaves two extra characters for the comment field.

And two fewer characters liable to corruption. (And you don't really
need the "=" either).

The shorter the packet the better.

--
73
Ian, G3NRW
g3nrw@tapr.org

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42. [aprsspec] Re: From APRSSIG - proposal for modified object format

From: Rolf Bleher <mail@Rolf-Bleher.de>
Date: Thu, 12 Apr 2001 14:10:51 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6447-2001.04.12-07.29.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >Only remaining question is whether the /EXP= is floating. I assume so.
> >and all 5 of those charactetrs must be an exact match...
>
> Unless there's a really pressing reason not to, I'd answer "yes"

I think it's a good solution, but why not using
   /D=1234   for duration 1234 minutes, or
   /X=1234   for expires in 1234 minutes

It's a little bit shorter...

Rolf
--
                                  ____
  Rolf Bleher   DK7IN   /
  N52d32.660' E013d20.920'   / Linux - life is too short for reboots
_____________________________/   http://www.Rolf-Bleher.de
                                              mail@Rolf-Bleher.de

---
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43. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Jeff King <jeff@aerodata.net>
Date: Fri, 13 Apr 2001 13:31:40 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6705-2001.04.13-12.49.07--lyris.aprsspec#tapr.org@lists.tapr.org>
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Bill:

I'm copying this to APRSSPEC as well since some of the APRS authors there are already discussing it.

I believe Bob's algorithm was based on picking a second of the minute to beacon on. It was seeded with your callsign. He would have posted it a few weeks before Dayton, not sure if it was last year or the year before. This required no changes to anyones software, it just required you to set the clock on your computer or sending device.

Coordinated time slots would be best as you suggested, but it requires a internet connection. We actually discussed this before.... the way you solve it is to have two granulates for the devices beaconing. You can pack the devices on the internet second by second where as the mobile devices you assign in a different segment (as far away (in time) as possible).

Basically, the mobile devices could send in the last 30 seconds of the minute, where as the internet connected devices could send in the first 30 seconds. You'll still have some collisions (as it is only a 50/50 chance the mobile will have his time set correctly to hit that last 30 seconds) but at least it will help somewhat.

Also, what will help alot is to STOP beaconing the first time you see your packet repeated. You could calculate sat rise and sat set, and only beacon until you are heard during each interval. A server could handle this as well.

-Jeff

Bill Diaz wrote:
>
> Don't recall the algorithm Bob described.

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44. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Fri, 13 Apr 2001 13:37:44 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6710-2001.04.13-12.56.32--lyris.aprsspec#tapr.org@lists.tapr.org>
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> I believe Bob's algorithm was based on picking a second of the
> minute to beacon on.

Wouldn't that infer one-minute beaconing through the ISS? I was under the impression that folks were attempting to avoid that if possible.

Ev, W2EV

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45. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Jeff King <jeff@aerodata.net>
Date: Fri, 13 Apr 2001 13:52:49 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6719-2001.04.13-13.10.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev Tupis wrote:
>
> > I believe Bob's algorithm was based on picking a second of the
> > minute to beacon on.
>
> Wouldn't that infer one-minute beaconing through the ISS? I was under

> the impression that folks were attempting to avoid that if possible.

No. Second of the chosen minute. Could be once a minute,
or once every 10 minutes. Lacking a centralized slot server, you need a
universal random method to chose the second of the minute to send on as
well as beacon frequency, whatever it might be for ISS.

In any case, I'm not telling anyone how to do anything. Don't have any
interest myself in beaconing through ISS. Just recalling a
similar discussion regarding beaconing at Dayton which also delt with
hidden terminals.

-Jeff

>
> Ev, W2EV
>
> ---
> You are currently subscribed to aprsspec as: jeff@aerodata.net
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
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46. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Fri, 13 Apr 2001 13:53:46 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6720-2001.04.13-13.13.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff King wrote:
>
> Ev Tupis wrote:
> >
> > > I believe Bob's algorithm was based on picking a second of the
> > > minute to beacon on.
> >
> > Wouldn't that infer one-minute beaconing through the ISS? I was under
> > the impression that folks were attempting to avoid that if possible.
>
> No. Second of the chosen minute.

Ahh. I misunderstood. Thanks.

Regards,
Ev

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47. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 13 Apr 2001 13:11:08 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6724-2001.04.13-13.28.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>No. Second of the chosen minute. Could be once a minute,
>or once every 10 minutes. Lacking a centralized slot server, you need a
>universal random method to chose the second of the minute to send on as
>well as beacon frequency, whatever it might be for ISS.

How is this different, in a practical sense, from just turning on a
transmitter with a fixed beacon rate, at some arbitrary time?

What happens if I'm sharing a "slot" with an alligator?

--
Dave's Engineering Page: http://www.dvanhorn.org
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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48. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Jeff King <jeff@aerodata.net>
Date: Fri, 13 Apr 2001 17:19:27 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6756-2001.04.13-16.36.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dave:

David VanHorn wrote:
>
> >
> >No. Second of the chosen minute. Could be once a minute,
> >or once every 10 minutes. Lacking a centralized slot server, you need a
> >universal random method to chose the second of the minute to send on as
> >well as beacon frequency, whatever it might be for ISS.
>
> How is this different, in a practical sense, from just turning on a
> transmitter with a fixed beacon rate, at some arbitrary time?

It is no different. Yet explain to me, lacking any formal specification, how you
would insure that this in indeed arbitrary? Humans are not random, and
the point of the posting I referenced to was some human pseudo code for
insuring this randomness. I believe the callsign was used as the random
seed (for the slot that the beacon occurred in) and some beacon rate was
pre-agreed upon.

The point here, is that if you assume humans are random, when it comes to numbers,
you'll end up with bunching. They are not random.

> What happens if I'm sharing a "slot" with an alligator?

I begin to wonder when someone asks a question they already know the answer to,
in particular when they are not an attorney. Of course it won't
work if someone decides to ignore the rules of the road. If you think what I was
suggesting won't work, just say that. It won't hurt my feelings in particular since
it wasn't even my idea (although I do agree it is a good idea, your pessimism may
be closer to reality).

My only reason for posting was to mention Bob B. had came up with a pseudo
algorithm some years back for the Dayton Hamfest. It *might* apply here. Because
the search engine on the TAPR Lyris site is broken, I was unable to post a
link to the message.

-Jeff

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49. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 13 Apr 2001 17:47:12 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>

Message-ID: <LYR11589-6763-2001.04.13-17.04.12--lyris.aprsspec#tapr.org@lists.tapr.org>
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Another answer might have been that sharing a slot with an aligator is
not that bad. Even if he has 10 dB more power (500 to your 50w) then at
many times through the pass due to all the other variables going on,
sooner or later, you are going to be 10 dB stronger and he is going to be
10 dB worse. Bingo, you get in...

> > What happens if I'm sharing a "slot" with an alligator? >

Jeff wrote:
> I begin to wonder when someone asks a question they already know the
> answer to, in particular when they are not an attorney. Of course it
> won't work if someone decides to ignore the rules of the road. If you
> think what I was suggesting it won't work, just say that. It won't hurt
> my feelings in particular since it wasn't even my idea (although I do
> agree it is a good idea, your pessimism may be closer to reality).
> -Jeff

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50. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 13 Apr 2001 19:15:52 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6790-2001.04.13-19.47.46--lyris.aprsspec#tapr.org@lists.tapr.org>
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>
>It is no different. Yet explain to me, lacking any formal specification,
>how you
>would insure that this in indeed arbitrary? Humans are not random, and the
>point of the posting I referenced to was some human pseudo code for
>insuring this randomness.

Algorithms aren't random either.
The best you can approach is "difficult to predict", and "evenly
distributed".

>The point here, is that if you assume humans are random, when it comes to
>numbers,
>you'll end up with bunching. They are not random.
>
>
> > What happens if I'm sharing a "slot" with an alligator?
>
>I begin to wonder when someone asks a question they already know the answer to

I was wondering if anyone had implemented/suggested a method to handle that.

--
Dave's Engineering Page: http://www.dvanhorn.org
Where's dave? http://www.findu.com/cgi-bin/find.cgi?kc6ete-9

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51. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Jeff King <jeff@aerodata.net>
Date: Fri, 13 Apr 2001 21:07:11 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6799-2001.04.13-20.24.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

David VanHorn wrote:
>

> >Humans are not random, and the
> >point of the posting I referenced to was some human pseudo code for
> >insuring this randomness.
>
> Algorithms aren't random either.

No, they are not. That is why you need to chose a seed number that is random.
Maybe use the checksum of your callsign as the seed number (or some combination
of the unique letters in your callsign).

> The best you can approach is "difficult to predict", and "evenly
> distributed".

EXACTLY. Evenly distributed is the key here. Still no where near as good
as some sort of assigned slotting system, yet better then the bunching and
anarchy when folks are left to their own choices.

> > > What happens if I'm sharing a "slot" with an alligator?

> I was wondering if anyone had implemented/suggested a method to handle that.

The FCC rules define that fairly well. Minimum power needed for communications.
I would think into a pair of crossed dipoles, 5 watts would be plenty.

It is really hard to enforce morality. If someone runs 500 watts (20db more then
is needed) then all they care about is themselves. I don't have a solution for
that one other then to decline to participate in a RF power war, if that is what it
is becoming. Anyways, ISS is long term so the congestion will clear out in due time
after the novelty factor wears out. Then some useful applications can be deployed.

-Jeff

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52. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 14 Apr 2001 09:13:06 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6854-2001.04.14-03.30.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <LYR13460-6799-2001.04.13-20.24.12--roger#peaksys.co.uk@lists
.tapr.org>, Jeff King <jeff@aerodata.net> writes
[snip]
>
>EXACTLY. Evenly distributed is the key here. Still no where near as good
>as some sort of assigned slotting system, yet better then the bunching and
>anarchy when folks are left to their own choices.

What I don't understand in this discussion is why anyone thinks that
bunching of transmissions will occur in the current situation, because
surely anarchy is inherently random? Could someone explain to me the
mechanism that is going to cause the bunching?

As far as I can see, the only advantage of assigned slots would be that
if you say to someone, for example, "transmit on second 37", then you're
also telling them to transmit no more than once a minute.

Also, I'm not so sure that the long periods of silence from ISS are as a
result of it being held off by uplink traffic. If it was, then I would
expect to see it spew out a whole bunch of frames when eventually it got
in, but I haven't seen any evidence of that at all. What I do notice is
that it seems much easier to access it when it's at a very low elevation
than when it's at a high angle, and that certainly isn't because of the
antennas I'm using. Could this be as a result of the position of the 2m
antenna on ISS?

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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53. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Jeff King <jeff@aerodata.net>
Date: Sat, 14 Apr 2001 15:28:26 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6911-2001.04.14-14.45.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Roger Barker wrote:
>
> In article <LYR13460-6799-2001.04.13-20.24.12--roger#peaksys.co.uk@lists
> .tapr.org>, Jeff King <jeff@aerodata.net> writes
> [snip]
> >
> >EXACTLY. Evenly distributed is the key here. Still no where near as good
> >as some sort of assigned slotting system, yet better then the bunching and
> >anarchy when folks are left to their own choices.
>
> What I don't understand in this discussion is why anyone thinks that
> bunching of transmissions will occur in the current situation, because
> surely anarchy is inherently random? Could someone explain to me the
> mechanism that is going to cause the bunching?

I'll try.

Every so called "random number" algorithm, at least the ones I have worked with in computers, really isn't random. You need a seed number to at least give it the chance of being random. Bob had suggested the seed number, in his post some time ago, as being the persons callsign or some combination.

You also need a standard algorithm to plug that random seed number into, be it a computer algorithm or human pseudo code. The "algorithm" in this case could define power levels, when to beacon, when a beacon is successful, how often to beacon, ect. The random element in the last paragraph is to insure even distribution of the transmissions.

Bunching is a known human behavior. One can see it in many forms.... the desire to pick a "round" number, working 9-5, rush hour, bidding on auctions, waiting until ISS is about to rise above the horizon to turn the beacon on. Doesn't matter the reason, it is just human behavior when most of us are left to our own means or lacking any pseudo code (etiquette) to guide us.

Anarchy is NOT random although in its earliest stages it may appear that way. Anarchy means the lack of any central control or group cooperation. However, anarchy is not a stable system. As a behavior system, be it human or political, it has a very short half life. As it progresses, its behavior becomes less and less random as it moves towards a organized system. In the political arena, we have periods of anarchy, however they typically don't last long. Local chieftains gain power over the local population due to some power they might have a monopoly on. Soon after that, further consolidation occurs. This is born out time and time again in history.

This same behavior model could be transposed to ham radio. Even though most radio regulatory bodies in most countries state to use the minimum power required, sales of HF amplifiers are brisk. The HF DX pile-ups are a good example of local chieftains rising to power. The station with the biggest antenna and biggest amplifier will get the contact. Even though in many cases the station with 10 watts and a dipole easily could make the contact, they are unable to compete against the powerhouse station.

In ISS we could have the same situation. Certain stations could beacon once every 10 seconds. Certain stations could run 500 watts when 5 watts would work. The stations that can afford 500 watt amps and don't see a problem with frequency beacons become the local "chieftain". To compete against the chieftain, you have to raise your power level and/or your beacon rate. Lacking any psedo-code, we have a anarchical system. A true anarchical system is unstable, hence local chieftains will arise.

With some assurance of random distribution, and some rules of the road, access would be more equitable. It also would approach the Aloha model (and with bunching it is less then aloha). Looking at Dave Vanhorn's example, with the 500 watt station on his 5 watt slot.... you also could dither each slot randomly within a certain window (although that would require software, up until now everything I spoke of didn't).

>As far as I can see, the only advantage of assigned slots would be that
>if you say to someone, for example, "transmit on second 37", then you're
>also telling them to transmit no more than once a minute.

I was primarily discussing means to encourage random distribution as opposed
to a coordinated slotting method. This would require cooperation among the
authors. However, if such is the case, their are significant advantages to
slotted aloha over aloha. I suggest you review some of the texts on packet radio
as you will clearly see the advantages, in particular for systems that are
comprised primarily of hidden terminals.

But lets take what you said a step further. The "only" advantage you state,
one of being able to assign slots and times, into itself is a significant advantage.
But you can take it even further then that. Since this "assignment" is made by
a server that has access to all these stations, and their receivers, it can tell
the sending station when in fact it has been heard by ISS. Then, it can instruct
the sending station... OK, ISS heard you, stop beaconing until ISS is at the other
end of the pass. This then opens up the slot for another station.

>Also, I'm not so sure that the long periods of silence from ISS are as a
>result of it being held off by uplink traffic. If it was, then I would
>expect to see it spew out a whole bunch of frames when eventually it got
>in, but I haven't seen any evidence of that at all.

I'd expect it to be operating in "FULLDUP" mode, that is ignoring CSMA. But
maybe it is not. Your question is best directed towards the ISS team.

>What I do notice is
>that it seems much easier to access it when it's at a very low elevation
>than when it's at a high angle, and that certainly isn't because of the
>antennas I'm using.

What kind of antennas are you using? Most (all) amateur omni antennas direct
most of the signal at the horizon. The best kind of antenna to us for ISS should
be crossed dipoles over a screen. This would give you the best signal as it went
overhead, where as a omni would give you the worst signal overhead.

Now in summary, all of my statements regarding packet theory (and the oversights)
where known by those that designed the ISS digipeater. Everything could have been
addressed before launch. It apparent wasn't. Hence, I don't expect anything
to change. It is primarily a PR tool, and as such, it is targeted exactly right. The
good news here is the novelty will soon wear off, and possibly we can use it for some
limited useful things.

I think rehashing Bob's Dayton psedo-code (Bob?) might be useful as it can be used by
mobiles, but a worldwide slotting system, while a good thing, just wouldn't be that
useful due to the fact it would not be universally adopted.

-Jeff

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

54. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 14 Apr 2001 23:30:13 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6919-2001.04.14-17.48.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In article <3AD8A4DA.A754F84F@aerodata.net>, Jeff King
<jeff@aerodata.net> writes
>
>I'll try.
[snip]

Thanks for the interesting reply. Perhaps I should make the point that I
was specifically commenting on the concept that "bunching" of
transmission is likely to be currently occurring. To expand the concept,
what it would mean is that -

At any given moment there are 'n' hams within the footprint of ISS
attempting to access it, and some mechanism is causing the transmissions
from those 'n' hams to "bunch" in time rather than be evenly
distributed.

I'm afraid that I'll remain sceptical about that until someone comes up
with a believable "for instance" that could cause it to occur.

>Bunching is a known human behavior. One can see it in many forms.... the
>desire to pick a "round" number, working 9-5, rush hour, bidding on auctions,
>waiting until ISS is about to rise above the horizon to turn the beacon on.

But that varies for each ham in the footprint, because they don't all
live in the same place. They also don't all have the same horizon angle,
the same antennas, the same receiver sensitivity, accurate clocks, etc,
etc.

[snip]

>>Also, I'm not so sure that the long periods of silence from ISS are as a
>>result of it being held off by uplink traffic. If it was, then I would
>>expect to see it spew out a whole bunch of frames when eventually it got
>>in, but I haven't seen any evidence of that at all.
>
>I'd expect it to be operating in "FULLDUP" mode, that is ignoring CSMA. But
>maybe it is not. Your question is best directed towards the ISS team.

Given that the TNC reset - hence the NOCALL - my assumption is that it's
operating half duplex. Perhaps I'm wrong?

>>What I do notice is
>>that it seems much easier to access it when it's at a very low elevation
>>than when it's at a high angle, and that certainly isn't because of the
>>antennas I'm using.
>
>What kind of antennas are you using? Most (all) amateur omni antennas direct
>most of the signal at the horizon. The best kind of antenna to us for ISS
>should
>be crossed dipoles over a screen. This would give you the best signal as it
>went
>overhead, where as a omni would give you the worst signal overhead.

Circularly polarised crossed dipoles with reflectors underneath (wx sat
style), colinear and a circularly polarised beam. However, I'm not
specifically commenting on my own attempts to access the digi, my
observations are based very much on what I'm hearing of other stations
attempts. (Note - I'm making these comments because I find the subject
interesting, I hope no-one regards it as a complaint or criticism!)

It could of course be that the ISS receiver is being totally blocked by
in band or out of band traffic. It certainly gives the impression that
it is hearing very little. For instance, I've noticed that if a station
connects to ISS (NOCALL), and the TNC on ISS gets in a situation where
it's polling the connected station, the poll frames will be transmitted
every few seconds, which doesn't suggest that it's a simple case of
being held off by uplink traffic.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.packetradio.org.uk
For WinPack go to - http://www.peaksys.co.uk

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55. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Jeff King <jeff@aerodata.net>
Date: Sat, 14 Apr 2001 19:03:00 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6926-2001.04.14-18.20.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Roger Barker wrote:
>
> In article <3AD8A4DA.A754F84F@aerodata.net>, Jeff King
> <jeff@aerodata.net> writes
>
[snip on bunching]

I'm stating bunching is part of human nature. We are not random creatures. While I
will concede to you that outside random influences can mitigate the effects of
bunching, I don't think we should depend on them nor assume such is the case. Someday

everyone's clock may infact be accurate for example. You can't depend on deficiencies
to always exist.

In any case, bunching is just one piece of the puzzle. The idea is to have a standard
algorithm that everyone can use... be it human pseudo code or some computer program.
Doesn't matter. Lacking this, it is in fact anarchy, and the rules of anarchy begin
to take affect. CQ contest, CQ contest.

> >What kind of antennas are you using?

> Circularly polarised crossed dipoles with reflectors underneath (wx sat
> style), colinear and a circularly polarised beam.

And is it safe to say you are in the minority here? Most of the ones commenting
on using ISS I have seen are using conventional vertically polarized omni's.

> However, I'm not
> specifically commenting on my own attempts to access the digi, my

Which means your observations are entirely consistent.

Let me ask you this. I was talking with another fellow off SIG and he indicated
to me he was observing some deep fading with the ISS station. He was using a
3.5db gain vertical on his car. With your crossed dipoles, where you observing
any deep fading? (>20db) I suggested that ISS is using linear polarization as
opposed to circular polarization, which is the norm for space coms. In your
case, using circular polarization, your fades would be minimal. Is such the
case?

> It could of course be that the ISS receiver is being totally blocked by
> in band or out of band traffic. It certainly gives the impression that
> it is hearing very little. For instance, I've noticed that if a station
> connects to ISS (NOCALL), and the TNC on ISS gets in a situation where
> it's polling the connected station, the poll frames will be transmitted
> every few seconds, which doesn't suggest that it's a simple case of
> being held off by uplink traffic.

Actually, a thought just came to me. Since ISS is receiving and transmitting on
different frequencies, there is no need to hold off for anything and
it should be in FULLDUP mode.

73

Jeff

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56. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sat, 14 Apr 2001 18:08:22 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-6927-2001.04.14-18.25.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Actually, a thought just came to me. Since ISS is receiving and
transmitting on
> different frequencies, there is no need to hold off for anything and
> it should be in FULLDUP mode.

They don't have duplexers up there, Jeff! There would be considerable
desense of the receiver in doing that, even if they had two antennas.

-Jim Jefferson KB0THN

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57. [aprsspec] Re: APRS Compliance

From: Timothy J Salo <tjs@tc.umn.edu>
Date: Sat, 14 Apr 2001 18:10:40 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-6928-2001.04.14-18.27.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Subject: [aprsspec] Re: APRS Compliance
> Date: Wed, 28 Mar 2001 07:04:34 -0500
> From: Steve Dimse <k4hg@tapr.org>
>
> On 3/27/01 5:50 PM Timothy J Salo (tjs@tc.umn.edu) wrote:
>   [...]
> >I believe that it is far more appropriate for an APRS protocol test suite
> >to be expressed as raw AX.25 frames (which reflect the objective of the
> >protocol specification, namely to specify correct on-the-air formats and
> >protocols).
> >
> To the best of my knowledge, all APRS programs accept the text format of
> input.

Pic-E, MIC-E, and HamHUD-III come to mind as APRS end-stations that do not
assume the existence of a TNC, and therefore do not accept TNC-style
text strings as input.

> By "raw AX.25 frames" I presume you are proposing a new file
> format with just the binary data, correct? TTBOMK, no APRS program
> accepts this format. Therefore, in order to use the test suite, each
> author must add code to their program, code which is otherwise worthless,
> and could be another source of errors.

I assume that all APRS programs accept 1200 bps AFSK, either baseband
(e.g., similar to what you would expect out of an audio jack on your
rig) or RF.

> Alternatively, someone must write
> programs to transmit the info on the air (or two TNC's back to back).
> This would allow people other than the programmers to perform the test,
> but requires setting up hardware.

I believe that making it easy to create and run tests against APRS
software will be a good thing for the APRS community. I believe that
it will lead to a much greater number of tests being developed and run.
This will lead to a greater understanding of how the different programs
respond to various packets and how the programs compare to the APRS
specification. It may even lead to an overall improvement in the
APRS implementations.

Obviously, the hardware part isn't very hard.

Somewhere, I have a Java class that represents an AX.25 packet. It
can create an instance of itself from a TAPR TNC2 or AEA/Timewave
text string, (or, in pre-object-oriented language, it can take a
text string as input). The class can output itself as a binary string
or a TNC2 or AEA/Timewave text string. This class is pretty liberal;
it accepts almost anything that is close, even some of the combined
TNC2/AEA format packets found on the APRServe data stream.

It wouldn't be too hard for the class to output itself as a KISS string.
I will probably do this in the next few weeks for another project.

More importantly, this isn't really hard code. The difficult part is
correctly parsing all the variations in TNC strings, particularly if you
want to use the APRServe data stream as input. As you mentioned,
many APRS programs have this code already (although I suppose the source
code for many of these implementation is not freely available).

> If it were a TNC text file, click open and you are testing.
>
> What precisly do you gain by using this format other than being more pure?

First, TAPR TNC2 text strings are not adequately expressive. Some
valid APRS packets cannot be encoded using TAPR TNC2 text strings
(e.g., may result in non-printing characters which may or may not be
preserved). The TNC text format doesn't allow some of the AX.25
fields to be set (e.g., AX.25 reserved bits). I don't think the
TAPR TNC2 format allows the AX.25 command/response bit to be controlled,
although I think the AEA/Timewave format does.

Second, I believe a language for representing APRS test messages
should also be able to create invalid messages. A reasonable example
is APRS messages without a terminating CR. I don't believe these can
be created using TNC text strings, but I believe that messages of this
form used to cause one or more APRS programs to crash.

Third, I believe that anything that continues to promote the TNC model
at this point in history is a disservice to the digital amateur community.
TNCs were instrumental in the popularization of packet radio. However,
that was a very long time ago -- we shouldn't be thinking in terms
of an architecture that made sense for C-64s.

Finally, I am trying to answer the question: Ignoring other practical
considerations, what would be the most powerful method of representing
APRS packets for the purposes of creating test scripts?

I suppose you can call my proposal more precise, more expressive, more
correct, more modern, or even more pure.

-tjs

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58. [aprsspec] Re: [aprssig] Re: Hidden transmitters & ARISS

From: Jeff King <jeff@aerodata.net>
Date: Sat, 14 Apr 2001 20:57:08 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-6939-2001.04.14-20.14.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

James:

The FULLDUP ON command just tells the TNC to ignore the Data Carrier
detect signal. Might be a different command for other TNC's, but that
was what my TNC2 was. Doesn't mean you really are full duplex.

-Jeff

James Jefferson wrote:
>
> > Actually, a thought just came to me. Since ISS is receiving and
> transmitting on
> > different frequencies, there is no need to hold off for anything and
> > it should be in FULLDUP mode.
>
> They don't have duplexers up there, Jeff! There would be considerable
> desense of the receiver in doing that, even if they had two antennas.
>
> -Jim Jefferson KB0THN

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59. [aprsspec] Re: APRS Compliance

From: Steve Dimse <k4hg@tapr.org>
Date: Sun, 15 Apr 2001 12:53:10 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-7096-2001.04.15-12.10.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 4/14/01 7:10 PM Timothy J Salo (tjs@tc.umn.edu) wrote:

>> To the best of my knowledge, all APRS programs accept the text format of
>> input.
>
>Pic-E, MIC-E, and HamHUD-III come to mind as APRS end-stations that do not
>assume the existence of a TNC, and therefore do not accept TNC-style
>text strings as input.
>
The Mic-E does not accept any input, and there are only a couple of
rarely used Pic-E programs that use the demod fundtion of the Pic-E. The
HH-III will

>> By "raw AX.25 frames" I presume you are proposing a new file
>> format with just the binary data, correct? TTBOMK, no APRS program
>> accepts this format. Therefore, in order to use the test suite, each
>> author must add code to their program, code which is otherwise worthless,
>> and could be another source of errors.
>
>I assume that all APRS programs accept 1200 bps AFSK, either baseband
>(e.g., similar to what you would expect out of an audio jack on your
>rig) or RF.
>
Wrong. None of my programs accept AFSK, and in fact for javAPRS and findu
there is no way to connect a TNC directly, so the data would have to come
through another program first. Nor do most of the client programs take
audio directly, requiring a TNC or sound card to convert the AFSK into
text or KISS frames first.

>> Alternatively, someone must write
>> programs to transmit the info on the air (or two TNC's back to back).
>> This would allow people other than the programmers to perform the test,
>> but requires setting up hardware.
>
>I believe that making it easy to create and run tests against APRS
>software will be a good thing for the APRS community. I believe that
>it will lead to a much greater number of tests being developed and run.
>This will lead to a greater understanding of how the different programs
>respond to various packets and how the programs compare to the APRS
>specification. It may even lead to an overall improvement in the
>APRS implementations.
>
I agree. That is why I think it is important to have a test suite
available to the largest number of users with the least possible effort.
>...
>More importantly, this isn't really hard code. The difficult part is
>correctly parsing all the variations in TNC strings, particularly if you
>want to use the APRServe data stream as input. As you mentioned,
>many APRS programs have this code already (although I suppose the source
>code for many of these implementation is not freely available).
>
No it isn't hard. However, you seem to be advocating multiple back and
forth conversions before the data actual gets to the program's parser,
which increases the chance for error. KISS!

>> If it were a TNC text file, click open and you are testing.
>>
>> What precisly do you gain by using this format other than being more pure?
>
>First, TAPR TNC2 text strings are not adequately expressive. Some
>valid APRS packets cannot be encoded using TAPR TNC2 text strings
>(e.g., may result in non-printing characters which may or may not be
>preserved). The TNC text format doesn't allow some of the AX.25
>fields to be set (e.g., AX.25 reserved bits). I don't think the
>TAPR TNC2 format allows the AX.25 command/response bit to be controlled,
>although I think the AEA/Timewave format does.
>
Setting undefined bits is hardly something that needs to be part of the
tesing suite. If someone defines a bit that the AX-25 protocol reserves,
it is simply not a valid AX-25 packet!

Non-printing characters can be present in a text string, in fact they are
all the time. There are only a handful allowed in the spec, and none of
these are ones that even require escaping (normally ctrl-v) like return.

>Second, I believe a language for representing APRS test messages
>should also be able to create invalid messages. A reasonable example
>is APRS messages without a terminating CR. I don't believe these can
>be created using TNC text strings, but I believe that messages of this
>form used to cause one or more APRS programs to crash.
>

Most APRS packets are transmitted on the air without a trailing carriage
return. If you want to include one in the string, you must escape it,
e.g. <ctl-v><cr>

>Third, I believe that anything that continues to promote the TNC model
>at this point in history is a disservice to the digital amateur community.
>TNCs were instrumental in the popularization of packet radio. However,
>that was a very long time ago -- we shouldn't be thinking in terms
>of an architecture that made sense for C-64s.
>

Version 1 of the aprsspec is, and alway we be, heavily dependent on the
TNC model. We are talking about the test suite for version 1 of the spec.
If there ever is a version 2, and it is not dependent on the TNC model,
then your argument makes sense.

>Finally, I am trying to answer the question: Ignoring other practical
>considerations, what would be the most powerful method of representing
>APRS packets for the purposes of creating test scripts?
>
One that can be looked at and examined by eye, without the need for
editing software. You didn't address this point of my argument. How
exactly do you plan to create and edit these packets?

As I said, you can use a vanilla binhex editor, but then everyone
writing, editing, and even just looking at them needs to become fluent
with the ins and outs of AX-25. You could write an AX-25 specific editor,
but you'd need at least Mac, Windows, and Linux versions for it to be
available to all who would be interested, and even then some knowledge of
the AX-25 spec would be needed.

>I suppose you can call my proposal more precise, more expressive, more
>correct, more modern, or even more pure.
>
No, I wouldn't, I'd say it's more effort-intensive, and more error prone.

Steve K4HG

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60. [aprsspec] Dayton Hamfest: APRS at the TAPR Digital Forum

From: Steve Dimse <k4hg@tapr.org>
Date: Thu, 26 Apr 2001 10:31:32 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-9321-2001.04.26-09.49.15--lyris.aprsspec#tapr.org@lists.tapr.org>
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.
Once again I have been handed the utterly impossible task of covering all
of APRS in 45 minutes within the TAPR Digital Forum on Friday. Without
announcement I have already received four requests for time. In previous
years, I tried to do a "What's New" sort of presentation myself, but this
year I will let people speak for themselves...here are the ground rules:

1. Anyone that wants to talk should email me directly (k4hg@tapr.org)
with a request, giving presenter's name, callsign, and topic. The
deadline for requests will be 0000z on May 5th. NO EXCEPTIONS!

2. Given that the requests already total more than the allocated 45
minutes, time will be split evenly among all who request. If any
presentations run short, there will be a general Q&A period afterwards.
NO EXCEPTIONS!

3. Given the problems that usually occur when trying to connect laptops
to the projector at presentations, no computers will be allowed. If you
have something you want to show off, create a handout to be passed out
prior to the presentation. NO EXCEPTIONS!

4. I will be very strict about time, I will notify the speakers in
advance of the time per presentation. Time will start from when you are
announced, not when you get to the front and start talking, so get there
early and sit in front if you want to maximize your time. I suggest you
practice to get it all in within your allocated time. NO EXCEPTIONS!

5. No yielding of allocated time (I.e. don't bother getting 5 of your
buddies to request time so you can talk longer). NO EXCEPTIONS!

6. If you ask for time, and then can't make it, please let me know as
soon as possible so that I can adjust the schedule.

7. It would good to announce where you will be later in the day for
questions, since there will be little if any time for questions to be
fielded at the time.

Sorry for the rules, but this is hard enough to do in a 6 hour format at
the DCC, 45 minutes is really tough.

I'd like a volunteer or two to help distribute handouts so we can
minimize disruptions.

Steve K4HG

[Please forward this to any APRS-related lists I miss]

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May 2001

Original source file: aprsspec.0105
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0105

1. [aprsspec] Davis Instruments Vantage weather station and APRS

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 14 May 2001 08:23:21 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-12616-2001.05.14-07.41.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

All APRS Authors:

Brett Lane sent me an announcement that Davis WX will have a new WX
station, and he wanted all APRS authors to have a copy of the interface
spec. The below message gives a URL for the data...

Enjoy, de Wb4APR, Bob

On Tue, 8 May 2001, Brett Lane wrote:

> Very shortly Davis Instruments will be releasing a new weather station that
> is far superior to any of its predecessors. Prior to its release I want to
> pledge our commitment to APRS and remind both of you that we hope to see
> future APRS versions compatible with our Vantage weather line.

> Below I have attached our first stab at programming documentation for the
> new station. Also, the complete user manual for the system (Vantage Pro
> Console Manual) is available for download at
> http://www.davisnet.com/support/weather/support_docs.asp?dtype=1

> If you have any questions please feel free to contact me.

> See ya in Dayton.

> Brett Lane
> Technical Support Manager
> 510-732-9229   blane@davisnet.com

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2. [aprsspec] General Queries

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 17 May 2001 09:26:33 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-13259-2001.05.17-09.45.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Do all IGates pass general queries from RF to the Internet? If so, it
would make sense to update IGate software to not gate general queries
(packets with ? as the first character). This would not affect directed
queries, just general queries such as ?APRS?, ?IGATE?, ?WX?, etc. While
?APRS? and ?WX? are rather harmless, ?IGATE? generates directed messages
to the originating station. Someone trying to see what IGates are local
would get a world-wide response (ugly).

This wouldn't preclude someone physically operating on an IGate from
generating a general query to the Internet. It would simply prevent RF
originated general queries from creating an overload on the Internet as
well as (in the case of ?IGATE?) preventing the Internet from
overloading the local RF channel with responses. Brent has modified the
latest version of APRS+SA to prevent the gating of general queries from
RF to the Internet. I would recommend that other IGate software authors
do the same.

By the way, "Why send an ?IGATE? query via RF?" you might ask. "To see
what IGates are in range of my station." I would reply.

73,

Pete Loveall AE5PL

http://www.ae5pl.net
mailto:pete@ae5pl.net

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] RE: General Queries

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 18 May 2001 02:54:45 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-13373-2001.05.18-03.13.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

One other problem observed with general queries. aprsD and others do
not respond correctly to ?IGATE?. First, many IGates respond with a
message to the query originator. Wrong (see below). Second, text is
sent instead of the proper IGATE codes.

This is from the published specification (section 15, para 1):

A station may define a set of one or more attributes of the station,
known as Station Capabilities. The station transmits its capabilities in
response to an IGATE query (see below), using the < Data Type
Identifier. Each capability is a TOKEN or a TOKEN=VALUE pair. More than
one capability may be on a line, with each capability separated by a
comma.
Currently defined capabilities include:
IGATE,MSG_CNT=n,LOC_CNT=n
where IGATE defines the station as an IGate, MSG_CNT is the number of
messages transmitted, and LOC_CNT is the number of "local" stations
(those to which the IGate will pass messages in the local RF network).

This means, at minimum, a response to a GENERAL IGATE query is a packet
that is solely "<IGATE,MSG_CNT=0,LOC_CNT=1". Additional tokens may be
added but that is the minimum (APRS+SA adds FILL_CNT). If the IGATE
query is directed, then this can be returned as a message, but never to
a general query.

>From my perspective, 2 things need to be done.
1: correct badly behaving IGate software to send the proper response to
?IGATE?.
2: have IGate software filter out general queries from being gated from
RF to the Internet.

#1 is the most readily fixable and variations from the standard other
than adding tokens should be considered a bug. #2 is an enhancement to
IGate software which would substantially decrease network activity.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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June 2001

Original source file: aprsspec.0106
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0106

1. [aprsspec] Detail on area objects

From: Olivier Calle <olivier@calle.org>
Date: Tue, 26 Jun 2001 10:17:19 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-20577-2001.06.26-12.37.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello,

I'm looking for more detail on the area object APRS Data Extension.
The spec (chapter 11, version 1.0.1) gives only a very cursory explanation
of what the area being defined is. I'll list a few specific questions:

Why does it say the size of the areas can go from 60 feet to 100 miles
when the smallest offset (1/100 of a degree) is closer to 1km?

The explanation that the lat/long is the upper left corner of the
object with the other corner being relative to there is fine for
drawing boxes and lines, but gives no guidance on drawing circles,
ellipses, or triangles. The phrase "corner of the object" is left
completely open to interpretation in the cases of circles/ellipses
since they have no corners. Is it a box within which the
circle/ellipse fits? That would be my first assumption, but that is
confused since doing it that way would not have required two object
types since an ellipse inside a square box is a circle.

Triangles are also a mystery. Drawing a triangle from just two points
must be using some unstated rules. What are they?

I think that's all for now.

Thanks in advance for enlightening me on these points.

--
Olivier Calle

internet: <olivier@calle.org>
work tel: 425-446-5088   home tel: 360-658-2692   To err is human,
callsign: N7TAP, class: General   to really foul up
job: Fluke Networks, Sr. Software Engineer   requires the root
WWW Page URL: http://calle.org/olivier/   password...
Psalm 48:14   SPU Electrical Engineering Graduate

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] Re: Detail on area objects

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 26 Jun 2001 13:48:36 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-20580-2001.06.26-13.08.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 6/26/01 1:17 PM Olivier Calle (olivier@calle.org) wrote:

>Why does it say the size of the areas can go from 60 feet to 100 miles
>when the smallest offset (1/100 of a degree) is closer to 1km?
>
This one is easy. If you look again at the spec, the size is defined as
the square root of 1/100 degrees, so 1 means the square root of 0.01
degrees, or 0.0001 degrees.

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Re: Detail on area objects

From: Olivier Calle <olivier@calle.org>
Date: Tue, 26 Jun 2001 11:13:10 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-20585-2001.06.26-13.33.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 26 Jun 2001, Steve Dimse appears to have said:
SD> This one is easy. If you look again at the spec, the size is defined as
SD> the square root of 1/100 degrees, so 1 means the square root of 0.01
SD> degrees, or 0.0001 degrees.

I'm still confused. The example on page 61 has an offset of one degree.
It multiplies that by 100 to get centi-degrees and then takes the square
root, using that value (10) in the formatted packet. If I do the same
example with .01 degrees, I get the square root of 1, and this is the
smallest number I can put in the formatted packet.
Here are the two equations I would come up with from the spec as I have
read it:
packet_format   = (int)sqrt(100 * offset_in_degrees)
offset_in_degrees = (packet_format * packet_format) / 100

What equations do you believe to be correct and shouldn't they be put into
the next rev of the spec, mathematical equations being a global standard
for accurately describing the transformation of numbers, etc. ;-)

--
Olivier Calle

internet: <olivier@calle.org>
work tel: 425-446-5088   home tel: 360-658-2692   To err is human,
callsign: N7TAP, class: General   to really foul up
job: Fluke Networks, Sr. Software Engineer   requires the root
WWW Page URL: http://calle.org/olivier/   password...
Psalm 48:14   SPU Electrical Engineering Graduate

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4. [aprsspec] Re: Detail on area objects

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 26 Jun 2001 14:21:12 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-20589-2001.06.26-14.15.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 6/26/01 2:13 PM Olivier Calle (olivier@calle.org) wrote:

>I'm still confused. The example on page 61 has an offset of one degree.
>It multiplies that by 100 to get centi-degrees and then takes the square
>root, using that value (10) in the formatted packet. If I do the same
>example with .01 degrees, I get the square root of 1, and this is the
>smallest number I can put in the formatted packet.
>Here are the two equations I would come up with from the spec as I have
>read it:
>packet_format   = (int)sqrt(100 * offset_in_degrees)
>offset_in_degrees = (packet_format * packet_format) / 100

You take the square root of the decimal number of degrees, not the
"centi-degrees" number. If 0.01 degree is your desired number, you take
the square root of .01, which is .1, the transmitted number is 10...

I put your "centi-degrees" in quotes, because that isn't the correct
nomencalture, the on-the-air-number is the square root of centi-degrees.
That you think of it as centi-degrees is the root of your
misunderstanding.

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] Re: Detail on area objects

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 26 Jun 2001 15:17:19 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-20592-2001.06.26-14.38.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 6/26/01 2:21 PM Steve Dimse (k4hg@tapr.org) wrote:

>I put your "centi-degrees" in quotes, because that isn't the correct
>nomencalture, the on-the-air-number is the square root of centi-degrees.

Actually, let me correct myself before someone else does. OTA number is
centi-square-root degrees!

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Re: Detail on area objects

From: Olivier Calle <olivier@calle.org>
Date: Tue, 26 Jun 2001 13:16:17 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-20600-2001.06.26-15.36.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 26 Jun 2001, Steve Dimse appears to have said:
SD> You take the square root of the decimal number of degrees, not the
SD> "centi-degrees" number. If 0.01 degree is your desired number, you take
SD> the square root of .01, which is .1, the transmitted number is 10...

OK, so the example is completely wrong. As I said before (and as you can
go read in the spec) it says that it has offsets of 1 degree and shows the
following:
yy = xx = sqrt(100) = 10
If I have offsets of 1 degree and do it the way you describe in your email
I get this:
yy = xx = 100 * sqrt(1) = 100
BTW, this object is slightly too big, right?

The spec also says this:
"yy is the square root of the latitude offset in 1/100ths of a degree."

So basically, the spec has it backwards both in the text (since there is
no equation to be found) and in it's example.

--
Olivier Calle

internet: <olivier@calle.org>
work tel: 425-446-5088   home tel: 360-658-2692   To err is human,
callsign: N7TAP, class: General   to really foul up
job: Fluke Networks, Sr. Software Engineer   requires the root
WWW Page URL: http://calle.org/olivier/   password...
Psalm 48:14   SPU Electrical Engineering Graduate

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7. [aprsspec] Re: Detail on area objects

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 26 Jun 2001 18:12:34 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-20642-2001.06.26-17.33.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 6/26/01 4:16 PM Olivier Calle (olivier@calle.org) wrote:

>OK, so the example is completely wrong. As I said before (and as you can
>go read in the spec) it says that it has offsets of 1 degree and shows the
>following:

Yes, the example is wrong, the example is 0.1 degree.

>yy = xx = sqrt(100) = 10
>If I have offsets of 1 degree and do it the way you describe in your email
>I get this:
>yy = xx = 100 * sqrt(1) = 100
>BTW, this object is slightly too big, right?
>
Yes, looks like 0.98 degrees is the largest you can describe.

>The spec also says this:
>"yy is the square root of the latitude offset in 1/100ths of a degree."
>
>So basically, the spec has it backwards both in the text (since there is
>no equation to be found) and in it's example.
>
No, the text is right, if poorly worded:

yy is (the square root of the latitude offset) in 1/100ths of a degree.

rather than:

yy is the square root of (the latitude offset in 1/100ths of a degree).

which is what I think you were reading.

I'd eliminate the "of a degree", as it is technically not correct.

Is Bob and/or Ian listening?

Steve K4HG

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July 2001

Original source file: aprsspec.0107
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0107

1. [aprsspec] Re: Detail on area objects

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 2 Jul 2001 18:43:19 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-21836-2001.07.02-18.04.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 26 Jun 2001, Steve Dimse wrote:

> yy is the square root of (the latitude offset in 1/100ths of a degree).
> which is what I think you were reading.
> I'd eliminate the "of a degree", as it is technically not correct.
>
> Is Bob and/or Ian listening?

No, I was on a weeks vacation with family and have 900 messages to wade
through. But am impressed at your patience in figuring this all out.
Id have to go back and re-look at my code. Remember, that what is in the
spec is Ian's interpretation and may or may not reflect how I actually did
it and then over 2 years got the Sprouls and mine to match up...

ALso I have one week to finish our satellite for final review, so wont
have time to pick up this ball till later. So thanks for jumping in!

It is painful, I am sure.
One mitigation is that the AREAS initially were up to 400 miles and in
about 1995 we changed the scale...to the smaller 100 mile ones... Im not
sure if the documentation ever caught up...   sorry....

bob

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2. [aprsspec] TAPR Offices Moving; Short Closure and New Phone Numbers

From: "John R. Ackermann" <jra@febo.com>
Date: Wed, 04 Jul 2001 18:25:44 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-22223-2001.07.04-17.50.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The TAPR offices will be moving a few miles from Denton to Richardson,
Texas. We'll be closing on July 26 for the move and re-opening on August
6. The Tucson mailing address will remain the same (it is a maildrop that
forwards to the real office address) but the phone numbers will change.
Effective August 6, they will be:

Voice: 972-671-TAPR (8277)
FAX: 972-671-8716

The office email address -- tapr@tapr.org -- will not change.

The move is occurring because Dorothy Jones, KA5DWR, our longtime Office
Manager, has decided to take a well-earned retirement. It would take a lot
of words to fully describe how much Dorothy has done for TAPR, and how much
we've all relied on her over the years, so I'll just say "Thanks!"

Our new office manager is Laura Koster (XYL of Board member John Koster,
W9DDD). Laura had a baptism of fire by handling the TAPR booth at the
Dayton Hamvention this year, and she did a great job. We're very happy to
have her on board, and we're sure that she will carry on Dorothy's goal of
providing great service to our members.

73,
John Ackermann   N8UR
President, TAPR
jra@febo.com -- n8ur@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Weather

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 17 Jul 2001 12:11:45 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24770-2001.07.17-14.33.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Page 64 of the APRS spec talks about weather report format:

```
 "s = sustained one-minute wind speed (in mph).
  p = rainfall (in hundredths of an inch) in the last 24 hours.
  ...
  Other parameters that are available on some weather station units include:
  L = luminosity (in watts per square meter) 999 and below.
  l (lower-case letter "L") = luminosity (in watts per square meter)
        1000 and above.
        (L is inserted in place of one of the rain values).
  s = snowfall (in inches) in the last 24 hours.
  # = raw rain counter"


Weather Questions:
------------------
1) Why are there two 's' fields defined, wind speed _and_ snow?
Is one a typo and should have been a capital 'S'?  Probably snow?

2) Rainfall in last 24 hours.  I assume this is intended to be a
rolling count going backwards from the current time 24 hours, and not
the amount of rain that was seen yesterday.  "last 24 hours" implies
a rolling count to me.  I'm fairly sure on this one, just checking.

3) The "Other parameters" _letters_ are defined, but the number of
bytes for each field are not.
I'll assume 'L' has 4 bytes (L999)
'l' has ?? bytes? (l1000, l10000, l100000000)
's' has ?? bytes?  Format?  (s1.25, s100.99)
'#' has ?? bytes?  Units?  Format?

4) What is the "raw rain counter"?  Is that the "total rain" counter
that some weather stations provide, or the raw counts from the
rain bucket over some time period?  How many bytes for that field
and in what format?  1/100 inch?  Inches?  Counts?

Curt Mills, WE7U                         hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto:    A tax on people who are bad at math." -- unknown
"Windows:  Microsoft's tax on computer illiterates." -- WE7U
```

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

4. [aprsspec] Re: Weather

From: David VanHorn <dvanhorn@cedar.net>
Date: Tue, 17 Jul 2001 14:20:40 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24773-2001.07.17-14.42.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here's another one for you:

How do you differentiate "No X" from "No sensor for X".
Is your windspeed 0 because it really is, or because you don't have a sensor?

There are some potholes in this spec.
--

Dave's Engineering Page: http://www.dvanhorn.org

I would have a link to http://www.findu.com/cgi-bin/find.cgi?KC6ETE-9 here
in my signature line, but due to the inability of sysadmins at TELOCITY to
differentiate a signature line from the text of an email, I am forbidden to
have it.

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] Re: Weather

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 17 Jul 2001 15:38:19 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
"Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24780-2001.07.17-14.59.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 17 Jul 2001, Curt Mills, WE7U wrote:

>
> Page 64 of the APRS spec talks about weather report format:
> Weather Questions:
> ------------------
> 1) Why are there two 's' fields defined, wind speed _and_ snow?
> Is one a typo and should have been a capital 'S'? Probably snow?

In the complete WX format, the WIND SPEED does not have a "s" format
identifier since it is in a FIXED position. Thus if you see "s", then it
is snow.

But then the Sprouls added the format for their verbose positionless
Weather format and I think it does have an s...

> 2) Rainfall in last 24 hours. I assume this is intended to be a
> rolling count going backwards from the current time 24 hours, and not
> the amount of rain that was seen yesterday. "last 24 hours" implies
> a rolling count to me. I'm fairly sure on this one, just checking.

Yes. I think only the original APRSdos does this. Newer programs took
the simpler approach of starting the count at midnight...

> 3) The "Other parameters" _letters_ are defined, but the number of
> bytes for each field are not.
> I'll assume 'L' has 4 bytes (L999) YES
> 's' has ?? bytes? Format? (s1.25, s100.99)   NO. 3 fixed bytes
> '#' has ?? bytes? Units? Format?   #### 4 BYTES always
>
> 4) What is the "raw rain counter"? Is that the "total rain" counter
> that some weather stations provide, or the raw counts from the
> rain bucket over some time period? How many bytes for that field
> and in what format? 1/100 inch? Inches? Counts?

It is the current 4 digit count from that instrument. It is useless
unless the recepient is keeping the previous values for comaprison...

de WB4APR, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Re: Weather

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 17 Jul 2001 15:42:44 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Curt Mills" <hacker@tc.fluke.com>,
"Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24786-2001.07.17-15.04.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 7/17/01 3:20 PM David VanHorn (dvanhorn@cedar.net) wrote:

>Here's another one for you:
>
>How do you differentiate "No X" from "No sensor for X".
>Is your windspeed 0 because it really is, or because you don't have a sensor?
>
No sensor is indicated by ... (the number of dots matching the number of
characters in the field).

>There are some potholes in this spec.

Yes, but this isn't one!

Steve K4HG

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Re: Weather

From: David VanHorn <dvanhorn@cedar.net>
Date: Tue, 17 Jul 2001 14:47:42 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        "Curt Mills, WE7U" <BowHunter@mail.com>,
        Curt Mills <hacker@tc.fluke.com>
Message-ID: <LYR11589-24788-2001.07.17-15.09.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 12:28 PM 7/17/01 -0700, Curt Mills, WE7U wrote:
>On Tue, 17 Jul 2001, David VanHorn wrote:
>
> > How do you differentiate "No X" from "No sensor for X".
> > Is your windspeed 0 because it really is, or because you don't have a
> sensor?
>
>Well, the spec allows "..." or "   " for the fields. It also allows
>any field to be absent, as long as it's not one of the few required
>fields at the beginning.

Is that defined as "no sensor"?
I see, for ex, weather stations with baro of 0.00.
Seems unlikely to be true, CNN would have been interested.

Windspeed of 0.00, where nearby stations are recording significant winds.
No sensor, Stuck, or ???

Wind direction of 0 where other stations nearby report significantly
different wind direction.
Same questions..

--
Dave's Engineering Page: http://www.dvanhorn.org

I would have a link to http://www.findu.com/cgi-bin/find.cgi?KC6ETE-9 here
in my signature line, but due to the inability of sysadmins at TELOCITY to
differentiate a signature line from the text of an email, I am forbidden to
have it.

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8. [aprsspec] Re: Weather

From: David VanHorn <dvanhorn@cedar.net>
Date: Tue, 17 Jul 2001 14:57:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Curt Mills" <hacker@tc.fluke.com>,
        "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24790-2001.07.17-15.18.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 03:42 PM 7/17/01 -0400, Steve Dimse wrote:
>On 7/17/01 3:20 PM David VanHorn (dvanhorn@cedar.net) wrote:
>
> >Here's another one for you:
> >
> >How do you differentiate "No X" from "No sensor for X".
> >Is your windspeed 0 because it really is, or because you don't have a
> sensor?
> >
>No sensor is indicated by ... (the number of dots matching the number of
>characters in the field).

Is this being implemented in the various packages?
A baro of 0.00 would be pretty amazing.

This was one of Dr Arnold's criticisms of the system, that bad, and
obviously wrong data was being sent out.
--
Dave's Engineering Page: http://www.dvanhorn.org

I would have a link to http://www.findu.com/cgi-bin/find.cgi?KC6ETE-9 here
in my signature line, but due to the inability of sysadmins at TELOCITY to
differentiate a signature line from the text of an email, I am forbidden to
have it.

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9. [aprsspec] Re: Weather

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 17 Jul 2001 16:08:05 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Curt Mills" <hacker@tc.fluke.com>,
"Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24791-2001.07.17-15.29.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 7/17/01 3:57 PM David VanHorn (dvanhorn@cedar.net) wrote:

>>No sensor is indicated by ... (the number of dots matching the number of
>>characters in the field).
>
>Is this being implemented in the various packages?
>A baro of 0.00 would be pretty amazing.
>
Yes, it is implemented in quite a few systems. findu correctly interprets
this, if you look at the CW page for example:

http://www.findu.com/cgi-bin/cw.cgi

You see that some squares in the table, for example the baro at CW0012,
are blank, indicating a NULL value, something quite distinct from a zero.

>This was one of Dr Arnold's criticisms of the system, that bad, and
>obviously wrong data was being sent out.

That still happens, but often there are other reasons. For example, when
a U2k powers up, until a calibration is entered, it sends bogus data. The
sensor is there, so the ..... is not sent, but the data is bad. If you
look at a lot of the weather stations, there are lots of poorly
maintained units out there that continue to send bad data. In the Keys,
with the county owned weather system (W7IUC-*), only half are currently
sending good data. Typically they rush to repair them when a storm is
threatening, otherwise they ignore them.

Steve K4HG

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10. [aprsspec] Re: Weather

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 17 Jul 2001 18:49:34 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
"Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24826-2001.07.17-18.12.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 17 Jul 2001, Curt Mills, WE7U wrote:

> Ok. So we can transmit inches of snow from "s00" to "s99", and not
> fractional inches? Is that intended to be snow base or fresh snow?
> If fresh snow, what timeframe?

I meant sXXX so 0.0 to 9.9 then 10 to 999 inches...
>
> You deleted the below line from your response. 'l' is in the spec
> also under the "Other parameters" heading, supposed to be luminosity
> greater than 1000. Not knowing the range for luminosity, do I assume
> that a 1000 gets added to a three digit value to give the final
> result for the 'l' field?

I think it is lxxx and if is greater than 1000 then it becomes Lxxx
where you can think of the L as the onethousands digit...

I dont have it in front of me, but that is the gyst of it..

Bob

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11. [aprsspec] Re: Weather

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 17 Jul 2001 14:13:11 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
"Curt Mills, WE7U" <BowHunter@mail.com>,
Curt Mills <hacker@tc.fluke.com>
Message-ID: <LYR11589-24828-2001.07.17-18.20.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 17 Jul 2001, Bob Bruninga wrote:

> On Tue, 17 Jul 2001, Curt Mills, WE7U wrote:
>
> > 1) Why are there two 's' fields defined, wind speed _and_ snow?
> > Is one a typo and should have been a capital 'S'? Probably snow?
>
> In the complete WX format, the WIND SPEED does not have a "s" format
> identifier since it is in a FIXED position. Thus if you see "s", then it
> is snow.
>
> But then the Sprouls added the format for their verbose positionless
> Weather format and I think it does have an s...

That's going to be rather confusing in the future. Both wind speed
and snow in the same packet have the same identifier for the field.

> > 2) Rainfall in last 24 hours. I assume this is intended to be a
> > rolling count going backwards from the current time 24 hours, and not
> > the amount of rain that was seen yesterday. "last 24 hours" implies
> > a rolling count to me. I'm fairly sure on this one, just checking.
>
> Yes. I think only the original APRSdos does this. Newer programs took
> the simpler approach of starting the count at midnight...

Xastir does this (as of Saturday): Keeps 24 hourly data buckets and
uses them to come up with the 24-hour rain and the since-midnight
rain totals. The 24-hour rain is the difference between current rain
total and the lowest rain_total stored in the 24 buckets. Seemed
like the right way to do it.

> > 3) The "Other parameters" _letters_ are defined, but the number of
> > bytes for each field are not.

> > I'll assume 'L' has 4 bytes (L999) YES
> > 's' has ?? bytes? Format? (s1.25, s100.99)   NO. 3 fixed bytes

Ok. So we can transmit inches of snow from "s00" to "s99", and not
fractional inches? Is that intended to be snow base or fresh snow?
If fresh snow, what timeframe?

You deleted the below line from your response. 'l' is in the spec
also under the "Other parameters" heading, supposed to be luminosity
greater than 1000. Not knowing the range for luminosity, do I assume
that a 1000 gets added to a three digit value to give the final
result for the 'l' field?

> > 'l' has ?? bytes? (l1000, l10000, l100000000)

So a value of 1500 would be encoded as "l500" ?? Can luminosity
ever be greater than 1999?

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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12. [aprsspec] Re: Weather

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 17 Jul 2001 12:28:57 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        "Curt Mills, WE7U" <BowHunter@mail.com>,
        Curt Mills <hacker@tc.fluke.com>
Message-ID: <LYR11589-24867-2001.07.17-22.20.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 17 Jul 2001, David VanHorn wrote:

> How do you differentiate "No X" from "No sensor for X".
> Is your windspeed 0 because it really is, or because you don't have a sensor?

Well, the spec allows "..." or "   " for the fields. It also allows
any field to be absent, as long as it's not one of the few required
fields at the beginning.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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13. [aprsspec] Area Objects

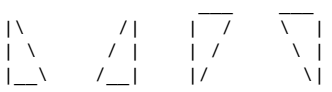
From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 17 Jul 2001 13:12:04 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24868-2001.07.17-22.20.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Area Object Questions:
----
1) Does anyone have any info yet about Area Objects? We still have
no information about how to implement circles, ellipses, or
triangles. The starting "corner" point is the main question here:
Circles and ellipses have a surprising lack of corner points, and
triangles definitely need some more explanation in the spec as well.
Perhaps circles/ellipses are defined with the lat/long point being
the center of the object? The upper left corner point of the box
the circle/ellipse would fit inside? Same for rectangles: is the
lat/long point the right-angle corner, or perhaps the upper left

corner of the rectangle it would fit inside?
Bob?

2) What sort of triangle? What do the transmitted numbers mean for a triangle? Right-angle triangle? Isosceles triangle? Which corner is the reference point? Perhaps it could be defined as an isosceles triangle with the right-angle being the reference corner, the two transmitted parameters defining: 1) The rotation angle, and 2) The length of the equal sides in feet/meters?
Bob?

The example given in the spec for triangles would seem to imply a right-angle triangle, with the right-angle at the lat/long reference point, and two sides of variable lengths going vertically and horizontally from that point. This means only four triangles could be drawn, with sides of different lengths:



End result: I wouldn't be able to draw a triangle of any other rotation. Imagine a search where I knew the direction of travel to be northerly due to tracks being found, but I couldn't draw a triangle on the search area that angled upwards (imagine a funnel pointing straight down)?

Actually the spec also says the lat/long point defines the upper left corner of the object, and that the object is drawn to the right and down from this point. That would mean we could draw one and only one rotation of triangle, but of different sizes (third triangle in the diagrams above).

3) For circles: Does it have to be a circle in lat/long, or could it be a more useful circle with a constant radius (distance-wise)? The spec says lat/long, which isn't as useful as say a circle of 0.5 miles radius. The main reason is that it will look like an ellipse instead of a circle most places in the world. In order to get objects that look like circles on the map screen we have to draw ellipses and carefully calculate the lat/long distances so that it ends up a circle at the particular latitude. A real pain. I'd much rather see circles defined with a distance parameter in feet or meters, and perhaps keep ellipses defined in terms of lat/long.
Bob?

4) Unless circles and ellipses are defined differently, why have circles at all? Ellipses can be circles.
Bob?

One of the shareware APRS programs appears to have incorrect sizing for the area objects, and they also go the wrong direction from the corner point w.r.t. what the spec says.
??

Curt Mills, WE7U hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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14. [aprsspec] Re: Weather

From: Paul Keinanen <keinanen@sci.fi>
Date: Wed, 18 Jul 2001 13:03:16 +0300
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-24911-2001.07.18-05.21.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 17 Jul 2001 14:13:11 -0700 (PDT), "Curt Mills, WE7U"
<hacker@tc.fluke.com> wrote:

>So a value of 1500 would be encoded as "l500" ?? Can luminosity
>ever be greater than 1999?

Certainly it is going to be greater than that in about 5E9 years, when
the Sun is expanding to become a red giant star and engulfing the
inner planets :-).

However, if that luminosity is over that anytime soon, we are in very
very great troubles and some APRS message overflows are the least
things to worry in that situation.

The full spectrum solar flux density at Earth's orbit (150 million km)
is about 1400 W/m2 and since the atmosphere filters out all X-ray,
most UV, a large part of mid IR and attenuates also the visible light
and the thermal IR window, so only about 1000 W/m2 will reach the
surface.

If a solar panel with 10 % efficiency is aimed towards the sun, you
should expect up to 100 W of electric power for each square meter of
panels.

I assume these luminosity figures in the APRS message refers to
luminosity perpendicular to the sun rays and not the luminosity
falling on a square meter of horizontal ground. Is this assumption
correct ?

Paul OH3LWR

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15. [aprsspec] Re: Area Objects

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 18 Jul 2001 08:33:20 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        "Curt Mills, WE7U" <BowHunter@mail.com>
Message-ID: <LYR11589-24918-2001.07.18-07.54.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 17 Jul 2001, Curt Mills, WE7U wrote:

> Area Object Questions:
> ----------------------
> 1) Does anyone have any info yet about Area Objects? We still have
> no information about how to implement circles, ellipses, or
> triangles. The starting "corner" point is the main question here:
> Circles and ellipses have a surprising lack of corner points, and
> triangles definitely need some more explanation in the spec as well.
> Perhaps circles/ellipses are defined with the lat/long point being
> the center of the object? The upper left corner point of the box
> the circle/ellipse would fit inside?

Yes, that is correct

> Same for rectangles: is the lat/long point the [LOWER]right-angle
> corner, or perhaps the upper left corner of the rectangle it would fit
> inside?

Yes. Lower right. the offsets then define the distance back to the upper
left.

> 2) What sort of triangle? What do the transmitted numbers mean for a
> triangle? Right-angle triangle? Isosceles triangle? Which corner
> is the reference point? Perhaps it could be defined as an isosceles
> triangle with the right-angle being the reference corner, the two
> transmitted parameters defining: 1) The rotation angle, and 2) The
> length of the equal sides in feet/meters?

The triangle is just a specialized LINE. Draw the line using the rules
for LINES. THen make it into an isosceles triangle symetrical about the
vertical axis. Thus you can only draw isosceles triangles and only with
the base down...

> End result: I wouldn't be able to draw a triangle of any other
> rotation. Imagine a search where I knew the direction of travel

> to be northerly due to tracks being found, but I couldn't draw
> a triangle on the search area that angled upwards (imagine a
> funnel pointing straight down)?

Use the LINE with a WIDTH. Im not sure that any of the other authors
implemented LINE WIDTHS, but APRSdos did. This way you can draw a
rectangle at any angle, showing a corridor or other such shape...

> 3) For circles: Does it have to be a circle in lat/long, or could it
> be a more useful circle with a constant radius (distance-wise)?

COnstant radius. APRSdos always scales a map so that there is no
distortion based on latitude. THus, a circle is a circle...

> spec says lat/long, which isn't as useful as say a circle of 0.5
> miles radius. The main reason is that it will look like an ellipse
> instead of a circle most places in the world.

a 50 mile circle is an elipse on any mercator projection map. That is why
APRSdos scales all map screens to latitude to eliminate that distortion.
Most other authors have not done that.

It doesnt matter what the radius of the circle is defined in. It can be
inches, feet furlongs, or minutes of latitude. It is still a circle...

> rather see circles defined with a distance parameter in feet or
> meters, and perhaps keep ellipses defined in terms of lat/long.

It is a constant radius.,

> 4) Unless circles and ellipses are defined differently, why have
> circles at all? Ellipses can be circles.

Actually, we never did elipses. The only drefinitiosn in APRS are
circles, lines boxes and triangles. There was no interest in doing
elipses..

> One of the shareware APRS programs appears to have incorrect sizing
> for the area objects, and they also go the wrong direction from the
> corner point w.r.t. what the spec says.

Yep, I have been fighting this for years. There seems to be
little interest in fixing it...

Bob

> ??
>
> Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
> Senior Methods Engineer/SysAdmin
> "Lotto: A tax on people who are bad at math." -- unknown
> "Windows: Microsoft's tax on computer illiterates." -- WE7U
>
>
>
> ---
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>
>

de WB4APR@amsat.org, Bob

ISS-APRS FAQ: http://web.usna.navy.mil/~bruninga/iss-faq.html
PCsat Design   http://web.usna.navy.mil/~bruninga/pcsat.html
CUBESAT Designs   http://web.usna.navy.mil/~bruninga/cubesat.html
APRS LIVE pages   http://web.usna.navy.mil/~bruninga/aprs.html
APRS SATELLITES   http://web.usna.navy.mil/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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16. [aprsspec] Re: Area Objects

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 18 Jul 2001 14:18:21 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-25010-2001.07.18-16.39.43--lyris.aprsspec#tapr.org@lists.tapr.org>
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On Wed, 18 Jul 2001, Bob Bruninga wrote:

> On Tue, 17 Jul 2001, Curt Mills, WE7U wrote:
>
> > Area Object Questions:
> > ----------------------
> > Perhaps circles/ellipses are defined with the lat/long point being
> > the center of the object? The upper left corner point of the box
> > the circle/ellipse would fit inside?
>
> Yes, that is correct

Which? I asked two questions that were entirely different. This is
an important point for me.

Is the point:
1) The center of the circle?
2) The upper left corner point of the box it would fit inside?
3) The lower right corner point of the box it would fit inside?

Which one?

> The triangle is just a specialized LINE. Draw the line using the rules
> for LINES. THen make it into an isosceles triangle symetrical about the
> vertical axis. Thus you can only draw isosceles triangles and only with
> the base down...

Bummer. That makes them next to useless for what I was intending.
I'd much rather have an isosceles triangle with a rotation angle
and a length. I can always make them with line objects, but it's
more complicated.

> > 3) For circles: Does it have to be a circle in lat/long, or could it
> > be a more useful circle with a constant radius (distance-wise)?
>
> COnstant radius. APRSdos always scales a map so that there is no
> distortion based on latitude. THus, a circle is a circle...

Constant radius in distance is not the same as constant radius in
lat/long. For Xastir we have the hooks in there to be able to scale
the X/Y so that the distance is correct in either direction, no matter
where you are on the globe. The formulas aren't in there to calculate
this properly yet, but they probably will be soon.

A circle in our case would be defined with a radius in a distance
measurement, not in a lat/long measurement. One defined with lat/long
would be an ellipse, at least where I live.

I'm most interested currently in SAR applications, where the commander
might ask me to put a 1-mile circle around the point last seen. I'd
certainly rather have a circle there than an ellipse which was caused
by the "circle" being defined in lat/long.

For me to draw a circle defined in lat/long, I'd have to draw an
ellipse and carefully compute the two radius (radii?) for my latitude
so that it came out as a circle. Below you mention though that
ellipses were never part of any APRS software. I have no way to draw
a circle on my screen unless I implement ellipses.

> It doesnt matter what the radius of the circle is defined in. It can be
> inches, feet furlongs, or minutes of latitude. It is still a circle...

Disagree. Depends on the map projection entirely. It may look
like a circle on your screen, but not on any equi-distant projection.
A circle for me would look like an ellipse for you.

> Actually, we never did elipses. The only drefinitiosn in APRS are
> circles, lines boxes and triangles. There was no interest in doing
> elipses..

I'll assume you meant APRSdos.

Then the APRS spec is wrong, or someone was getting ahead of themselves
in defining things that don't exist in any APRS software.

Is anyone collecting bugs/omissions in the spec with the intention of
correcting them someday? I've learned things about objects and
weather recently and would like to see them get into the spec
someday. I suppose Ian is burned out on spec writing by now.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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17. [aprsspec] Re: Area Objects

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 19 Jul 2001 11:27:10 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-25182-2001.07.19-13.48.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 18 Jul 2001, Curt Mills, WE7U wrote:

> Is anyone collecting bugs/omissions in the spec with the intention of
> correcting them someday? I've learned things about objects and
> weather recently and would like to see them get into the spec
> someday. I suppose Ian is burned out on spec writing by now.

Can I judge by the overwhelming response that there really isn't
anyone doing this?

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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18. [aprsspec] Re: Area Objects

From: Jeff King <jeff@aerodata.net>
Date: Thu, 19 Jul 2001 18:32:13 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-25233-2001.07.19-17.52.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"Curt Mills, WE7U" wrote:

> On Wed, 18 Jul 2001, Curt Mills, WE7U wrote:

> > Is anyone collecting bugs/omissions in the spec with the intention of
> > correcting them someday? I've learned things about objects and
> > weather recently and would like to see them get into the spec
> > someday. I suppose Ian is burned out on spec writing by now.

> Can I judge by the overwhelming response that there really isn't
> anyone doing this?

I'd say that is a good guess.

The problem is, by appearances, it would seem the APRS-WG no longer exists, although
some might claim otherwise. One thing is certain, the majority of members are now inactive
and new volunteers to replace them have been turned away (or more likely ignored). I see
no disgrace in resigning from a organization that one has done a good job serving on, yet
now lack the interest/time to actively contribute to it.

Lacking that, probably the thing to do is form a non-profit corporation for the purpose of

administering the spec. It might be possible to even re-use the existing document as the
copyright claimant (APRS-WG) is not a legal entity (although that could change, and in any
case would likely not be a good course of action to pursue.... best to ask first).

Hmmmm..... I know CVS can be used in non source code applications... maybe it is
time to source forge this document/activity so those that are interested can participate.

-Jeff

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19. [aprsspec] Re: Area Objects

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 19 Jul 2001 16:48:34 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-25247-2001.07.19-19.09.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 19 Jul 2001, Jeff King wrote:

> Hmmmm..... I know CVS can be used in non source code applications... maybe it is
> time to source forge this document/activity so those that are interested can participate.

Now THAT is an excellent idea!

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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20. [aprsspec] Altitude in comment field

From: "Ant□nio S□rgio Sena" <asena@bigfoot.com>
Date: Wed, 25 Jul 2001 5:50:33
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26116-2001.07.25-06.12.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello people!

I am testing some APRS packet beaconing and i am having some problems.
I'll give you some examples, maybe you can help me:

With   !3853.73N/009.02.07W>010/005 /A=000123   UIView recognizes the Car,
but does not show Course/Speed and Altitude.

With   @231010z3853.73/009.02.07W>010/005 /A=000123   UIView recognizes
the Car, shows Course/Speed but does not show the Altitude.
I tested this packet with WinAprs and the same happens.

I need Altitude !!!

I went through all the protocol, and found that these packets are ok. But i
may be wrong.
Can anyone help me ??
Thanks for it!

73 de CT2GPW, Sena

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21. [aprsspec] Re: Altitude in comment field

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 25 Jul 2001 08:23:50 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        Roger Barker <roger@peaksys.co.uk>,
        Keith Sproul <ksproul@vger.rutgers.edu>,
        Mark Sproul <msproul@jove.rutgers.edu>
Message-ID: <LYR11589-26122-2001.07.25-07.45.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The longitude in both is screwed up...

Bob

On Wed, 25 Jul 2001, António Sérgio Sena wrote:

> I am testing some APRS packet beaconing and i am having some problems.
> I'll give you some examples, maybe you can help me:
>
> With   !3853.73N/009.02.07W>010/005 /A=000123   UIView recognizes the Car,
> but does not show Course/Speed and Altitude.
>
> With   @231010z3853.73/009.02.07W>010/005 /A=000123   UIView recognizes
> the Car, shows Course/Speed but does not show the Altitude.
> I tested this packet with WinAprs and the same happens.
>
> I need Altitude !!!
>
> I went through all the protocol, and found that these packets are ok. But i
> may be wrong.
> Can anyone help me ??
> Thanks for it!
>
>
> 73 de CT2GPW, Sena
>
>
>
> ---
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>
>

de WB4APR@amsat.org, Bob

ISS-APRS FAQ: http://web.usna.navy.mil/~bruninga/iss-faq.html
PCsat Design   http://web.usna.navy.mil/~bruninga/pcsat.html
CUBESAT Designs   http://web.usna.navy.mil/~bruninga/cubesat.html
APRS LIVE pages   http://web.usna.navy.mil/~bruninga/aprs.html
APRS SATELLITES   http://web.usna.navy.mil/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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22. [aprsspec] Altitude in comment field

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Wed, 25 Jul 2001 14:26:18 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26132-2001.07.25-08.48.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello people!

I am testing some APRS packet beaconing and i am having some problems. I'll give you some examples,
maybe you can help me:

With   !3853.73N/00902.07W>010/005 /A=000123   UIView recognizes the Car, but does not show Course/Speed
 and Altitude.

With   @231010z3853.73/00902.07W>010/005 /A=000123   UIView recognizes the Car, shows Course/Speed but
 does not show the Altitude. I
tested this packet with WinAprs and the same happens.

I need Altitude !!!

I went through all the protocol, and found that these packets are ok. But i may be wrong. Can anyone help me ?? Thanks for it!

73 de CT2GPW, Sena

****
Antonio Sergio Sena   CT2GPW
asena@bigfoot.com

BEng Electrical & Electronic Engineering
Heriot-Watt University - Edinburgh

Homepage: www.qsl.net/ct2gpw
****

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23. [aprsspec] Re: Altitude in comment field

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Wed, 25 Jul 2001 14:26:18 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26133-2001.07.25-08.48.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thats not the problem...
I made a mistake when i wrote the email.

Of course, it should be 3843.73N 00902.07W.

Sena

> The longitude in both is screwed up...
>
>
> Bob
>
> On Wed, 25 Jul 2001, António Sérgio Sena wrote:
>
> > I am testing some APRS packet beaconing and i am having some problems.
> > I'll give you some examples, maybe you can help me:
> >
> > With   !3853.73N/009.02.07W>010/005 /A=000123   UIView recognizes the Car,
> > but does not show Course/Speed and Altitude.
> >
> > With   @231010z3853.73/009.02.07W>010/005 /A=000123   UIView recognizes
> > the Car, shows Course/Speed but does not show the Altitude.
> > I tested this packet with WinAprs and the same happens.
> >
> > I need Altitude !!!
> >
> > I went through all the protocol, and found that these packets are ok. But i
> > may be wrong.
> > Can anyone help me ??
> > Thanks for it!
> >
> >
> > 73 de CT2GPW, Sena
> >
> >
> >
> > ---
> > You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil

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> > Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
> >
> >
>
> de WB4APR@amsat.org, Bob
>
> ISS-APRS FAQ: http://web.usna.navy.mil/~bruninga/iss-faq.html
> PCsat Design   http://web.usna.navy.mil/~bruninga/pcsat.html
> CUBESAT Designs   http://web.usna.navy.mil/~bruninga/cubesat.html
> APRS LIVE pages   http://web.usna.navy.mil/~bruninga/aprs.html
> APRS SATELLITES   http://web.usna.navy.mil/~bruninga/astars.html
> MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html
>
>

****
Antonio Sergio Sena   CT2GPW
asena@bigfoot.com

BEng Electrical & Electronic Engineering
Heriot-Watt University - Edinburgh

Homepage: www.qsl.net/ct2gpw
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24. [aprsspec] Re: Altitude in comment field

From: "Jeff Brenton" <ka9vnv@dididahdahdidit.com>
Date: Wed, 25 Jul 2001 11:17:30 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26159-2001.07.25-11.39.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have seen that spaces in front of the /A= sometimes causes programs to
miss the altitude. I separated the altitude information from the comment
field in the digipeater database specifically so that I could control where
it is placed in the posit files to correct a multitude of such errors
received in the source data...

It may also be that UIView is expecting the altitude to be proceeded by a
PHGxxxx value; try your beacons as follows, and report the results:

!3853.73N/00902.07W>010/005/A=000123
!3853.73N/00902.07W>010/005PHG1110/A=000123

The altitude should not be consider part of the comment field, but rather
an optional portion of the fixed-format position. At least a few programs
consider it this way, whether the specification says so or not.

Jeff Brenton, Ham radio call KA9VNV
Questionable web page: http://dididahdahdidit.com
Northern Illinois APRS Network: http://nian.aprs.net
Engineered Software Products: http://espi.com

My goal in life: To be remembered as someone who always
stated what should have been obvious to everyone in the
first place.

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25. [aprsspec] Re: Altitude in comment field (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 25 Jul 2001 14:09:36 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26179-2001.07.25-13.31.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

GLad someone is checking things. THe location of the "/A=" is supposed to
be allowed anywhere after the ICON character.... Since that is
where the optional COMMENT string may begin... (IMHO).... Bob

On Wed, 25 Jul 2001, Jeff Brenton wrote:

> I have seen that spaces in front of the /A= sometimes causes programs to
> miss the altitude. I separated the altitude information from the comment
> field in the digipeater database specifically so that I could control where
> it is placed in the posit files to correct a multitude of such errors
> received in the source data...

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26. [aprsspec] Re: Area Objects (fwd)

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 25 Jul 2001 12:03:40 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26184-2001.07.25-14.25.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This is part of a private reply from Bob. I asked his permission
to post portions of it to the list.

Perhaps someday if a volunteer shows up to put out a revised spec,
this info and the recent weather info about snow fields, luminosity,
and raw rain counter can be put into the spec. Since there are no
examples for these, the number of bytes in each field is undefined
in the spec. Also the "s" flag for Snow conflicts with another
implementation regarding sustained one-minute wind speed.

Note that the spec does not fully specify the fields for the
additional weather fields possible (details from Bob in an earlier
message to the aprsspec list), and for Area Objects, ellipses were
never implemented, and the reference "corner" and direction for the
offsets for all Area Objects/Items is incorrect in the spec. The
spec also doesn't specify how to define a triangle or a circle
properly. Circles have no corners, and triangles can be defined
many ways. See the below and earlier messages from Bob in the
aprsspec list for the definitions.

Also consider putting in a reference packet for each type of object
so that the sizes and reference points can be checked in a new APRS
implementation. We're currently noticing that our objects and Bob's
objects are of different sizes. Wah.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

---------- Forwarded message ----------
Date: Fri, 20 Jul 2001 20:21:57 -0400 (EDT)
From: Bob Bruninga <bruninga@usna.edu>
To: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Subject: Re: [aprsspec] Re: Area Objects (fwd)

On Fri, 20 Jul 2001, Curt Mills, WE7U wrote:

> > > Perhaps circles/ellipses are defined with the lat/long point being
> > > the center of the object? The upper left corner point of the box
> > > the circle/ellipse would fit inside?
> >
> > Yes, that is correct
>
> Which? I asked two questions that were entirely different. This is
> an important point for me.

No, I only see one answer. Yes..

The point is the center. The offset is the upper left corner defined as
the corner of the box it fits into...

> Is the point:
> 1) The center of the circle?
> 2) The upper left corner point of the box it would fit inside?
> 3) The lower right corner point of the box it would fit inside?
>
> Which one?

Your oritiginal question I dont recall seeing any reference to the lower
right. If so, it is not involved.

bob

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27. [aprsspec] Rules to SIG by

From: Stan Horzepa <stanzepa@mail2.nai.net>
Date: Wed, 25 Jul 2001 19:43:40 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26234-2001.07.25-19.06.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

PURPOSE

The purpose of the APRS SPEC SIG is to provide a forum for folks interested
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APRS SPEC SIG RULES

The APRS SPEC SIG has a few simple rules:

. Be courteous. Abusive, insulting, or rude behavior demonstrated towards
another list member is a violation of this rule.

. Stick to the subject, i.e., the APRS protocol specification. Subjects
that are only tangentially related to the APRS protocol specification (like
³what kind of printer should I buy to print out my copy of the APRS
specification?²) may be considered off-topic. If you start a message with
³this is off-topic□² then you are violating this rule.

. Be succinct when composing a message. (The APRS SPEC SIG software has
been optioned to limit the length of each message.)

. When quoting a previous message, only quote the parts of that message you
are referencing. (The APRS SPEC SIG software has been optioned to limit the
length of a quote.)

. Do not send messages in HTML of Rich Text format.

. Do not send attachments.

. Cross-posting is not permitted. (The APRS SPEC SIG software has been
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. The APRS SPEC SIG administrator reserves the right to suspend or ban any
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QUESTIONS, COMMENTS, ETC.

If you have any questions, comments, etc. concerning the APRS SPEC, please
email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

28. [aprsspec] Re: Area Objects (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 26 Jul 2001 08:33:12 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26303-2001.07.26-07.54.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here are the codes for two test objects:

 ;CIRCLE   *071423z3900.00N/07200.00W/l5211325 with a radius of 22.3 mi
 ;RECTANGLE*071424z3900.00N/07200.00W/l9321331 47mi high by 35 mi wide

The LINE would be the same as the diagonal for the box and the Triangle
would be an isoceles triange made out of the diagonal and another side
symetrical about the vertical axis.

Hope that helps

de WB4APR@amsat.org, Bob

ISS-APRS FAQ: http://web.usna.navy.mil/~bruninga/iss-faq.html
PCsat Design   http://web.usna.navy.mil/~bruninga/pcsat.html
CUBESAT Designs   http://web.usna.navy.mil/~bruninga/cubesat.html
APRS LIVE pages   http://web.usna.navy.mil/~bruninga/aprs.html
APRS SATELLITES   http://web.usna.navy.mil/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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29. [aprsspec] Re: Altitude in comment field

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Thu, 26 Jul 2001 15:14:09 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26316-2001.07.26-09.36.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've tried also without the space in front of the /A=, and it turned out the same.

I dont want to use the PHGxxxx, because this is a mobile beacon and if there is an Altitude /A=
described and available in the APRS protocol,
why shouldnt we use it ??

I guess the problem remains in the APRS software out there..... just a guess....

73 de Sena, CT2GPW

I have seen that spaces in front of the /A= sometimes causes programs to
> miss the altitude. I separated the altitude information from the comment
> field in the digipeater database specifically so that I could control where
> it is placed in the posit files to correct a multitude of such errors
> received in the source data...
>
> It may also be that UIView is expecting the altitude to be proceeded by a
> PHGxxxx value; try your beacons as follows, and report the results:

>
> !3853.73N/00902.07W>010/005/A=000123
> !3853.73N/00902.07W>010/005PHG1110/A=000123
>
> The altitude should not be consider part of the comment field, but rather
> an optional portion of the fixed-format position. At least a few programs
> consider it this way, whether the specification says so or not.

****
Antonio Sergio Sena   CT2GPW
asena@bigfoot.com

BEng Electrical & Electronic Engineering
Heriot-Watt University - Edinburgh

Homepage: www.qsl.net/ct2gpw
****

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

30. [aprsspec] Re: Altitude in comment field (fwd)

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Thu, 26 Jul 2001 15:14:09 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26317-2001.07.26-09.36.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

So... we have a problem with the APRS user software.... Lets wait and see if they fix it.

> GLad someone is checking things. THe location of the "/A=" is supposed to
> be allowed anywhere after the ICON character.... Since that is
> where the optional COMMENT string may begin... (IMHO).... Bob
>

****
Antonio Sergio Sena   CT2GPW
asena@bigfoot.com

BEng Electrical & Electronic Engineering
Heriot-Watt University - Edinburgh

Homepage: www.qsl.net/ct2gpw
****

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31. [aprsspec] Re: Altitude in comment field

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 26 Jul 2001 12:41:51 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26345-2001.07.26-12.03.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 26 Jul 2001, Antonio Sergio Sena wrote:

> So... we have a problem with the APRS user software.... Lets wait and
> see if they fix it.

Usually that tecnhique does not work... APRS programs have to do an awfull
lot of parsing and display. THere are probably hundreds of combinations.
You may find something that the author has not.

If you do not communicate this to the original author of the program so
that he is personally aware of what you are seeing, then the chances are
very small that he is going to ever find the little bug you are seeing.
ANd with the hundreds of other things on his TO-DO list, it probably is
way down the list.

So, the authors all like to fix their programs, but they need feedback
from the users. Give them the full details and I bet you will find each
of them will be more than happy to work with you to fix it. With 200
EMails a day on the APRS SIG's, do not expect a complaint there to be read
by an author. Too easy to miss.

If you see a bug, write the author directly...
I bet you wil be amazed at the results...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

32. [aprsspec] Re: Altitude in comment field

From: "E. Tupis W2EV" <w2ev@rochester.rr.com>
Date: Thu, 26 Jul 2001 18:14:33 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26392-2001.07.26-17.34.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Antonio,
Do this, please: Open a UI-View terminal window. Select the text from
that window. Copy it. Paste it into an eMail and send it to the list.
Do not hand-transcribe it (due to errors that may occur). Once it is
examined exactly as you receive it, we can help to diagnose it better
for you.

Ev, W2EV

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33. [aprsspec] Re: Altitude in comment field

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Fri, 27 Jul 2001 10:56:34 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26453-2001.07.27-05.18.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This is what i am TXing,

@3853.73N/00902.07W>123/050/A=001234

Beware of!! WinAprs works fine, but UIView does not.
I have already sent an email to Roger Barker, UIVIew, so he can know what i found.

73 de Sena, CT2GPW

> Antonio,
> Do this, please: Open a UI-View terminal window. Select the text from
> that window. Copy it. Paste it into an eMail and send it to the list.
> Do not hand-transcribe it (due to errors that may occur). Once it is
> examined exactly as you receive it, we can help to diagnose it better
> for you.
>
> Ev, W2EV
>

****
Antonio Sergio Sena   CT2GPW
asena@bigfoot.com

BEng Electrical & Electronic Engineering
Heriot-Watt University - Edinburgh

Homepage: www.qsl.net/ct2gpw
****

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34. [aprsspec] Re: Altitude in comment field

From: Steve Dimse <k4hg@tapr.org>
Date: Fri, 27 Jul 2001 06:05:03 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26454-2001.07.27-05.26.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 7/27/01 5:56 AM Antonio Sergio Sena (asena@bigfoot.com) wrote:

>This is what i am TXing,
>
>@3853.73N/00902.07W>123/050/A=001234
>
>Beware of!! WinAprs works fine, but UIView does not.
>I have already sent an email to Roger Barker, UIVIew, so he can know what
>i found.
>
This is not correct. Reports starting with the @ sign are supposed to
include a timestamp. Change the @ to '=' if you are able to accept APRS
messages, or to '!' if you cannot accept messages, and you should get the
results you are hoping for.

Steve K4HG

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35. [aprsspec] Re: Altitude in comment field

From: "Antonio Sergio Sena" <asena@bigfoot.com>
Date: Fri, 27 Jul 2001 20:56:57 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-26521-2001.07.27-15.18.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >@3853.73N/00902.07W>123/050/A=001234
> >
> >Beware of!! WinAprs works fine, but UIView does not.
> >I have already sent an email to Roger Barker, UIVIew, so he can know what
> >i found.
> >

> This is not correct. Reports starting with the @ sign are supposed to
> include a timestamp. Change the @ to '=' if you are able to accept APRS
> messages, or to '!' if you cannot accept messages, and you should get the
> results you are hoping for.
>
> Steve K4HG
>

Unfortunately not.
I added the time stamp to the frame:

@231011z3853.73N/00902.07W>123/050/A=001234

And it still does not work in UIView.

Sena CT2GPW

****
Antonio Sergio Sena CT2GPW
asena@bigfoot.com

BEng Electrical & Electronic Engineering
Heriot-Watt University - Edinburgh

Homepage: www.qsl.net/ct2gpw
****

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August 2001

Original source file: aprsspec.0108
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0108

1. [aprsspec] SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 10:04:32 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Steve Dimse K4HG <k4hg@tapr.org>, Keith Sproul <ksproul@vger.rutgers.edu>,
Mark Sproul <msproul@jove.rutgers.edu>,
Brent Hildebrand <bhildebrand@earthlink.net>,
Roger Barker <roger@peaksys.co.uk>,
Robert Bruninga <bruninga@arctic.usna.edu>
Message-ID: <LYR11589-27652-2001.08.03-09.26.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

With ISS and UO22 in orbit and digipeating APRS packets and the imminent
launch of PCsat and SAPPHIRE, we need a consistent way to build SATGATES
for injecting APRS packets into the APRS Internet system. This is my
suggested DRAFT SATGATE spec:

SPACECRAFT that DIGIPEAT AX.25 packets: (* after Sept 2001)
 ISS   via NOCALL, downlink 145.800 1200 baud
 UO22 via UOSAT5, downlink 435.120 9600 baud +/- Doppler
 OPAL via KF6RFX, downlink 437.100 9600 baud +/- Doppler
 *PCsat via PCSAT, downlink 145.825 and 144.39 1200 and 9600 baud
 *SAPPHIRE v TBD, downlink 437.100 1200 baud +/- Doppler

Of these, ISS and PCsat will be the most popular by far, since they are
EASY to do with an OMNI whip antenna and NO Doppler tuning and 1200 baud.

Most packets will probably be Mic-E (Kenwood) packets due to the mission
to support mobile and handheld APRS communications. Packets heard on
the downlink will be of the form:

   FROMCALL>TOCALL,SATLITE*:packet....

Where the SATLITE* indicates the packet was digipeated from that
Satellite. The purpose of this SATGATE SPEC is to define what happens to
the packet once it hits the ground. We want to identify on WHAT downlink
it was heard and WHICH SATGATE injected it into the APRS Internet system.
To this end, I propose the following standard:

SATGATES will have a unique SSID associated with each of its receiver
ports so that we can tell on which port a packet was heard. THus, I
suggest the following SSID defaults for the SATGATE calls:

   -1 PCSAT 1200 baud on 145.825
   -2 PCsat 9600 baud on 145.825
   -4 UO22 9600 baud on 435.120
   -7 OPAL or SAPPHIRE on 437.100
   -11 PCsat 1200 baud on 144.39
   -12 PCsat 9600 baud on 144.39
   -15 ISS   1200 baud on 145.800

SATGATES will REBUILD the path of the original packet by INSERTING their
CALLSIGN,TCPIP* AFTER the satellites digipeater callsign. Using the
above example, the packet will be inserted into the INTERNET using the
existing TAPR-2 ASCII standard as follows:

  FROMCALL>TOCALL,SATLITE*,SATGATE-SS*,TCPIP*:packet.....

Where SS is the 0-15 SATGATE SSID indicating the receiver port of this
SATGATE used to copy the above packet.

NOTE: I see no reason why this standard cannot also apply to all packets
injected into the APRS Internet system as a means of identifying the IGATE
and the port of origin into the network... but that is a separate issue..

de WB4APR@amsat.org, Bob

ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
PCsat Design   http://www.ew.usna.edu/~bruninga/pcsat.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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2. [aprsspec] Re: SATGATE Specification (Draft)

From: "Jeff King" <transit_man@hotmail.com>
Date: Fri, 03 Aug 2001 16:23:45 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: k4hg@tapr.org, ksproul@vger.rutgers.edu, msproul@jove.rutgers.edu,
bhildebrand@earthlink.net, roger@peaksys.co.uk,
bruninga@arctic.usna.edu
Message-ID: <LYR11589-27671-2001.08.03-11.45.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As Bob was/is a member of the APRS-WG, does this mean the WG (if they still
presently exist) is now accepting extensions to
the protocol? I seem to recall a number of people submitted extensions,
and were politely told it would have to wait until the spec was done. Some
of these extensions were as well written as Bob's.

Not complaining, but to give the "appearence" of fairness, it might be
prudent to also address those at this time. Of course, if the WG has
disbanded, I guess it is just a matter of who puts the most presure on
the authors to adopt whatever they promote.

Just thought I'd point that out, if anyone cares.

-Jeff

>From: Bob Bruninga <bruninga@usna.edu>
>To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
>CC: Steve Dimse K4HG <k4hg@tapr.org>, Keith Sproul
><ksproul@vger.rutgers.edu>, Mark Sproul <msproul@jove.rutgers.edu>,
>Brent Hildebrand <bhildebrand@earthlink.net>, Roger Barker
><roger@peaksys.co.uk>, Robert Bruninga <bruninga@arctic.usna.edu>
>Subject: [aprsspec] SATGATE Specification (Draft)
>Date: Fri, 3 Aug 2001 10:04:32 -0400 (EDT)
>
>With ISS and UO22 in orbit and digipeating APRS packets and the imminent
>launch of PCsat and SAPPHIRE, we need a consistent way to build SATGATES
>for injecting APRS packets into the APRS Internet system. This is my
>suggested DRAFT SATGATE spec:

_____
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3. [aprsspec] Re: SATGATE Specification (Draft)

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Fri, 3 Aug 2001 12:53:03 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27675-2001.08.03-12.14.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have to concur with Jeff on this... at a minimum it should have been
formally announced that the working group was re-opening itself to
considering extensions..

This is not meant to denigrate both good efforts and well intended actions
on the part of the authors... I for one am thankful for the contribution
from all those who have made their good efforts available.

I for one made a proposal a couple of years back that the UI Frame digipeat
function should be modified to accommodate delay in retransmission.... An
experiment I ran at the time (and posted on the APRS Sig) showed that for
unconnected packets... many TNC's did not use any delay in retransmission...
every digipeater immediately retransmitted UI frame packets... and thus only

stations that were out of hearing from all but one... had any chance of
hearing the digipeat.... connected mode packets were the only packets that
acted properly in listening before transmissions....

Several folks noted how that was informative.. but the proposal (for one
example) died.... I was looking forward for some open-source digi code
(that could be installed on digipeating capable TNC's without an ancillary
PC) that I could "hack" on to make this happen... and I still have hope that
Marco will release UIDigi source (as he stated he would in his Beta testing
days).... now I'm looking forward to HH III code being open sourced... and
have acquired AVR development hardware and software to assist me in doing
this.... I think it has the potential to be a DYNAMITE project... sort of a
Kenwood that allows Hams to go in and work on the code themselves..... and
maybe Phil Karns proposal to AMSAT will come to fruition and allow the
same... THANKYOU PHIL for making the case for an Open Source solution....

I know it's been ranted and raved here in the past that there are doers and
there are talkers... but I know for a fact some doers have gone ahead and
done some stuff (ex: UIView, PropNet) and it was called into question and
even slammed... maybe these too ought to have the option to propose their
extensions as submissions...

Also there were those who wanted to establish telemetry standards (a single
weather format rather than the tower of babel) and they were sidelined..

What's good for one should be good for all...

ALOHA
AH6LS

> -----Original Message-----
> From: Jeff King [SMTP:transit_man@hotmail.com]
> Subject: [aprsspec] Re: SATGATE Specification (Draft)
>
> As Bob was/is a member of the APRS-WG, does this mean the WG (if they
> still
> presently exist) is now accepting extensions to
> the protocol? I seem to recall a number of people submitted extensions,
> and were politely told it would have to wait until the spec was done. Some
> of these extensions were as well written as Bob's.

> Not complaining, but to give the "appearence" of fairness, it might be
> prudent to also address those at this time. Of course, if the WG has
> disbanded, I guess it is just a matter of who puts the most presure on
> the authors to adopt whatever they promote.
>
> Just thought I'd point that out, if anyone cares.
>
> -Jeff
>

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4. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 13:14:41 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org, k4hg@tapr.org, ksproul@vger.rutgers.edu,
        msproul@jove.rutgers.edu, bhildebrand@earthlink.net,
        roger@peaksys.co.uk, bruninga@arctic.usna.edu
Message-ID: <LYR11589-27681-2001.08.03-12.37.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff, as you recall, Steve Dimse never published an IGate spec, nor has
anyone ever put the existing mess down on paper. After the last round of
serious volunteers to put it together for the WG here on the SIG, nothing
ever came of it.

Nothing has changed.
The WG is willing to address a draft spec if someone will put it together.
In the meantime, we have a timely need to solve the problem of SATGATES.
In that vein, I proposed the draft addressing only that issue.

Bob

 On Fri, 3 Aug 2001, Jeff

King wrote:

> As Bob was/is a member of the APRS-WG, does this mean the WG (if they still
> presently exist) is now accepting extensions to
> the protocol? I seem to recall a number of people submitted extensions,
> and were politely told it would have to wait until the spec was done. Some
> of these extensions were as well written as Bob's.
>
> Not complaining, but to give the "appearence" of fairness, it might be
> prudent to also address those at this time. Of course, if the WG has
> disbanded, I guess it is just a matter of who puts the most presure on
> the authors to adopt whatever they promote.
>
> Just thought I'd point that out, if anyone cares.
>
> -Jeff

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5. [aprsspec] Re: SATGATE Specification (Draft)

From: "Jeff King" <transit_man@hotmail.com>
Date: Fri, 03 Aug 2001 17:31:42 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org, k4hg@tapr.org, ksproul@vger.rutgers.edu,
msproul@jove.rutgers.edu, bhildebrand@earthlink.net,
roger@peaksys.co.uk, bruninga@arctic.usna.edu
Message-ID: <LYR11589-27686-2001.08.03-12.53.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga <bruninga@usna.edu> wrote:

>Jeff, as you recall, Steve Dimse never published an IGate spec, nor has
>anyone ever put the existing mess down on paper.

I wasn't talking about a IGate spec, or Steve Dimse. I was talking about
the numerous people who wrote extensions specs who were politely told they
had to wait. Allan already brought up one, and I know there are others.

>Nothing has changed.
>The WG is willing to address a draft spec if someone will put it together.

Go in the archives then.... I'm just saying in fairness, the ones
before yours should be addressed first. Assuming, and that is a
big assumption, that the WG still exists, why do you feel your rights
to have a proposal considered should override those that have had
proposals sitting on the table for a year or more?

The problem with insisting the WG still is a viable body, as you seem
to keep doing, is occasionally someone will call you to task on it. I
am doing this. So, since you insist the WG is a viable body, then
do the right and fair thing, and open the spec to extensions and release
the holds that were put on other people's suggested extensions.

Why is this so hard to understand?

-Jeff

_____
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6. [aprsspec] Re: SATGATE Specification (Draft)

From: John Ackermann N8UR <jra@febo.com>
Date: Fri, 03 Aug 2001 13:33:21 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27687-2001.08.03-12.55.32--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Just for the record -- Bob's email is the first that I, and I suspect other, members of the WG have heard about this proposal. It's not even clear to me that he intended it to be considered by the WG, since he addressed it to a very public mailing list, didn't separately cc at least two WG members (Mike Musick and me), and did cc two non-WG members (Steve Dimse and Roger Barker). I can assure you that the WG is not working on this, or frankly any other, proposal.

Whether the WG is still alive or not is a good question. Neither TAPR nor I own or control the group, and if the members would rather spend their time elsewhere, there's not much that can be done about that. People naturally want to spend their hobby time doing what's fun and relaxing, and I can assure you from personal experience that developing a protocol specification in the ham environment is neither.

As an aside, I'll also note that despite all the hoohah several months ago about an APRS internet spec, and all the people volunteering to work on it, and the WG offering at least informal support,* not much more has been heard
about that project since. Perhaps the WG isn't the only group realizing how they'd rather spend their time. (I'm not saying that to cast aspersions on the folks who volunteered, who I know all had the best of intentions; I'm merely pointing out what is a pretty predictable pattern in these matters.)

73,
John N8UR
jra@febo.com

* In looking at my mail files, I don't see that the WG took a formal vote to that effect or made a public statement, but I do see that Bill Diaz, who was instrumental in the server discussions, was cc'd on several emails where support from several WG members was informally offered.

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7. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 13:35:02 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27689-2001.08.03-12.57.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 3 Aug 2001, Sadowski, Allan wrote:

> I have to concur with Jeff on this... at a minimum it should have been
> formally announced that the working group was re-opening itself to
> considering extensions..
<snip>

Huh? Tabloid missinformation again?
There has been no such announcement. Only Jeff's off-the-wall confusing and inflamitory inference to mix up apples and oranges.

Here is what is going on. I posted a draft of a backwards compatible idea for SATGATES to inject data into the Internet to meet an emergent need. Let me clarify it for those who may be confused:

1) This has nothing to do with the APRS SPEC
2) This has nothing to do with the never written IGate SPEC
3) This is an emergent need to solve the SATGATE problem.
4) This is not an invitation for additions to the APRS SPEC 1.0
5) The invitation *still stands* for anyone to draft an IGate spec

If discussions about the SATGATE problem inspires someone to draft the long awaited IGATE protocol spec (to document what Steve originally implemented) for submission to the APRSWG then the WG is MORE THAN WILLING TO ACCEPT and review such a submission...

In the meantime, I need authors to add some backwards compatible SATGATE code to what we already have so that we can get some SATGATES on line... and know where the packets are coming from.

de WB4APR, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 13:43:06 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-27691-2001.08.03-13.05.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 3 Aug 2001, Jeff King wrote:

> I wasn't talking about a IGate spec, or Steve Dimse. I was talking about
> the numerous people who wrote extensions specs who were politely told they
> had to wait. Allan already brought up one, and I know there are others.

Huh?
No one has said anything about opening up for the next version of the
APRS SPEC when we dont even have an INTERNET SPEC. We must have an
internet spec (which is what the majority of the APRS infrastructure is
all about) before we start messing up what is working now.

> ... So, since you insist the WG is a viable body, then
> do the right and fair thing, and open the spec to extensions and release
> the holds that were put on other people's suggested extensions.

No way are we going to start messing around with a version 2 of the APRS
SPEC when we dont even have a draft INTERNET SPEC.

> Why is this so hard to understand?

Good question! It seems perfectly clear to me.

de WB4APR, BOb

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9. [aprsspec] Re: SATGATE Specification (Draft)

From: Steve Dimse <k4hg@tapr.org>
Date: Fri, 3 Aug 2001 14:14:19 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Keith Sproul" <ksproul@vger.rutgers.edu>,
        "Mark Sproul" <msproul@jove.rutgers.edu>,
        "Brent Hildebrand" <bhildebrand@earthlink.net>,
        "Roger Barker" <roger@peaksys.co.uk>,
        "Robert Bruninga" <bruninga@arctic.usna.edu>
Message-ID: <LYR11589-27697-2001.08.03-13.36.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/3/01 10:04 AM Bob Bruninga (bruninga@usna.edu) wrote:

>SPACECRAFT that DIGIPEAT AX.25 packets: (* after Sept 2001)
> ISS   via NOCALL, downlink 145.800 1200 baud
> UO22 via UOSAT5, downlink 435.120 9600 baud +/- Doppler
> OPAL via KF6RFX, downlink 437.100 9600 baud +/- Doppler
> *PCsat via PCSAT, downlink 145.825 and 144.39 1200 and 9600 baud
> *SAPPHIRE v TBD, downlink 437.100 1200 baud +/- Doppler
>....
> FROMCALL>TOCALL,SATLITE*,SATGATE-SS*,TCPIP*:packet.....
>
This violates the typical TNC protocol, where only the last-transmitting
station is starred. Granted, there are other violations of this, e.g.

K4HG>WU2Z*,WIDE4-2:...

Where although WU2Z is starred, the packets has already been
retransmitted by two WIDEn-n's, AFAIK there has never been an occasion
before where there are two stars, this has a high risk of breaking a lot
of existing applications.

Can you explain more about why this is such an emergent issue? Just as
findu.com can easily identify packets retransmitted by ISS (NOCALL*),
each of these other sats have digi IDs that are unique. About the only
thing I can see different is this could differentiate the 9600 port from
the 1200 port on PCSAT, is this such an important issue?

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 14:20:34 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27698-2001.08.03-13.41.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

John Ackermann N8UR wrote:

> People
> naturally want to spend their hobby time doing what's fun and relaxing, and
> I can assure you from personal experience that developing a protocol
> specification in the ham environment is neither.

That is why it is importent to allow new blood into the group. I understand
12 people volunteered, maybe it is time to fill some of the open/inactive slots.

> As an aside, I'll also note that despite all the hoohah several months ago
> about an APRS internet spec, and all the people volunteering to work on it,
> and the WG offering at least informal support,* not much more has been
> heard
> about that project since. Perhaps the WG isn't the only group realizing
> how they'd rather spend their time. (I'm not saying that to cast
> aspersions on the folks who volunteered, who I know all had the best of
> intentions; I'm merely pointing out what is a pretty predictable pattern in
> these matters.)

Whatever, I posted a rough outline and no-one commented on it, including the
principles. It is one thing volunteering, another doing something, and yet another
even getting recognition for what you have done. Think about it.

It is either time to get the WG back into gear, or close up shop and declare
victory. This limbo you and the WG insist on keeping in place is not productive.

-Jeff

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11. [aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 14:22:28 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27699-2001.08.03-13.43.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob/John:

Bob Bruninga wrote:

> No way are we going to start messing around with a version 2 of the APRS
> SPEC when we dont even have a draft INTERNET SPEC.

I posted a rough outline of a internet spec, and had the FTP manager of TAPR
even open a group about this. ME, not someone else. Not much, mind you, but
people would rather bitch and moan on this list then do anything. And when
someone does do something, it often is ignored or "deffered".

Not a single person commented on my outline, yeah or nay, WG or otherwise. You
can only try so hard Bob.

I'm really tired of hearing this broken record from you and TAPR how no-one
volunteers or does anything. It is complete BS.

> > Why is this so hard to understand?
>
> Good question! It seems perfectly clear to me.

As it is to me.

-Jeff

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12. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 14:31:36 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        Keith Sproul <ksproul@vger.rutgers.edu>,
        Mark Sproul <msproul@jove.rutgers.edu>,
        Brent Hildebrand <bhildebrand@earthlink.net>,
        Roger Barker <roger@peaksys.co.uk>,
        Robert Bruninga <bruninga@arctic.usna.edu>
Message-ID: <LYR11589-27700-2001.08.03-13.53.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 3 Aug 2001, Steve Dimse wrote:

> > FROMCALL>TOCALL,SATLITE*,SATGATE-SS*,TCPIP*:packet.....
> >
> This violates the typical TNC protocol, where only the last-transmitting
> station is starred....
> Can you explain more about why this is such an emergent issue?

OOPS! I see now that I confused what it looks like AFTER going back to RF
on the existing system with what it looks like GOING IN. Sorry...

The main reason that I want to do something different is so that we can
preserve the identification of the SATGATE that injected it; which the
current IGATE process does not do.

So, drop the TCPIP* from my suggestion. THus, I think all I am proposing
is that SATGATES simply insert their CALL* at the end of the path before
inserting into the internet.

Your point is well taken whether any prior *'s should be eliminated.

BUT, I have seen existing TNC's that put a * by all digi fields that have
the has-been-used bit set. SO having multiple *'s should not be a
precedence. If there is code that is confused by this, then that code
will not work with existing TNC's some of which do insert multiple *'s...
So I hope that it is not a problem.

back to ya....

BOb

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13. [aprsspec] Re: SATGATE Specification (Draft)

From: Steve Dimse <k4hg@tapr.org>
Date: Fri, 3 Aug 2001 14:33:19 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27701-2001.08.03-13.55.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/3/01 2:22 PM Jeff King (jeff@aerodata.net) wrote:

>I posted a rough outline of a internet spec, and had the FTP manager of TAPR
>even open a group about this. ME, not someone else. Not much, mind you, but
>people would rather bitch and moan on this list then do anything. And when
>someone does do something, it often is ignored or "deffered".
>
>Not a single person commented on my outline, yeah or nay, WG or otherwise.
>You
>can only try so hard Bob.
>
I never commented on what you submitted, because it was essentially a cut
and paste of what others had produced before. If the APRS Internet System
spec were going to take 1000 hours, you have done 10. 1% of a job is
nothing I'd take particular pride over!

>I'm really tired of hearing this broken record from you and TAPR how no-one
>volunteers or does anything. It is complete BS.
>
So you think you do 1% of the job and others should do 99%? That speaks
volumes about you, Jeff.

Steve K4HG

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14. [aprsspec] Re: SATGATE Specification (Draft)

From: Steve Dimse <k4hg@tapr.org>
Date: Fri, 3 Aug 2001 14:43:15 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>,
        "Keith Sproul" <ksproul@vger.rutgers.edu>,
        "Mark Sproul" <msproul@jove.rutgers.edu>,
        "Brent Hildebrand" <bhildebrand@earthlink.net>,
        "Roger Barker" <roger@peaksys.co.uk>,
        "Robert Bruninga" <bruninga@arctic.usna.edu>
Message-ID: <LYR11589-27703-2001.08.03-14.05.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/3/01 2:31 PM Bob Bruninga (bruninga@usna.edu) wrote:

>OOPS! I see now that I confused what it looks like AFTER going back to RF
>on the existing system with what it looks like GOING IN. Sorry...
>
>The main reason that I want to do something different is so that we can
>preserve the identification of the SATGATE that injected it; which the
>current IGATE process does not do.
>
I've said for years not including each IP station ID in the path was my
greatest error in designing the APRS IS, inserting this before the TCPIP*
would cause no problems as far as I can see.

>So, drop the TCPIP* from my suggestion. THus, I think all I am proposing
>is that SATGATES simply insert their CALL* at the end of the path before
>inserting into the internet.
>
That still leaves two *'s, right? again, I'm not sure how existing
software will respond to this.

The TCPIP* is used by several things on the APRS IS, I think removing it
would cause problems, certainly on an unverified connection it would
cause the data to be dropped.

>BUT, I have seen existing TNC's that put a * by all digi fields that have
>the has-been-used bit set. SO having multiple *'s should not be a
>precedence. If there is code that is confused by this, then that code
>will not work with existing TNC's some of which do insert multiple *'s...
>So I hope that it is not a problem.
>
Which do this? I have never seen it. I'm very unsure my code would not
break if faced with this, I've never tested it...

Steve K4HG

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15. [aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 14:46:18 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27704-2001.08.03-14.06.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse wrote:

> >
> >Not a single person commented on my outline, yeah or nay, WG or otherwise.
> >You
> >can only try so hard Bob.
> >
> I never commented on what you submitted, because it was essentially a cut
> and paste of what others had produced before. If the APRS Internet System
> spec were going to take 1000 hours, you have done 10. 1% of a job is
> nothing I'd take particular pride over!

Thanks for your kind words of encouragement. However, unlike you, I do not take protocol development as a "king of the hill" kind of endeavor. I approach it as a open source effort.... where even a "1% of a job" means something. Being that NO-ONE, including yourself, was doing anything, I thought my "1% of a job" might focus people. Sorry it didn't rise to your standards.

> >I'm really tired of hearing this broken record from you and TAPR how no-one
> >volunteers or does anything. It is complete BS.
> >
> So you think you do 1% of the job and others should do 99%?

1% of something is better then 100% of nothing, which is what we have now. In any case, I only offered it as outline, which in technical writing is a good place to start.

>That speaks volumes about you, Jeff.

A discussion with you wouldn't go anywhere without you getting personal, would it?

Do you care to speak volumes about me Steve on this group? Have at it Steve, I'd love to hear what you think about me.

-Jeff

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16. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 14:49:57 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27705-2001.08.03-14.12.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 3 Aug 2001, Jeff King wrote:

> I posted a rough outline of a internet spec, and had the FTP manager of TAPR
> even open a group about this. ME, not someone else. Not much, mind you, but
> people would rather bitch and moan on this list then do anything. And when
> someone does do something, it often is ignored or "deffered".

Case-in-point. Yep, that is the problem. You tried to get someone to help you flesh it out. Just like we have requested over and over. But still no one has found time to do the work of putting a draft together. I dont blame anyone, everyone is busy. But I wish you would stop blaming the WG

when you also have experienced the same problem. Someone has got to do
the work and not just whine about it...

> Not a single person commented on my outline, yeah or nay, WG or otherwise.
> You can only try so hard Bob.

That is what we have been saying all along. You claimed to have all these
volunters all lined up to put together an IGate SPEC... yet even your own
attempt by drafting an outline also went no where...

> I'm really tired of hearing this broken record from you and TAPR how no-one
> volunteers or does anything.

We don't complain. You are the only one that complains. We simply state
facts. That is... no one has drafted an IGate SPEC. If somone will take
the time to draft an IGATE SPEC to document what currently exists, then
the WG is more than happy to review it for formal adoption.

We do not blame volunteers for not volunteering. We simply recognize that
people that can really get things done are busy. And those that can't
really contribute anything useful are sometimes pretty good at complaining
about everyone else...

de WB4APR@amsat.org, Bob

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17. [aprsspec] Re: SATGATE Specification (Draft)

From: Steve Dimse <k4hg@tapr.org>
Date: Fri, 3 Aug 2001 14:50:57 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27706-2001.08.03-14.13.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/3/01 2:46 PM Jeff King (jeff@aerodata.net) wrote:

>> >I'm really tired of hearing this broken record from you and TAPR how no-one
>> >volunteers or does anything. It is complete BS.
>> >
>> So you think you do 1% of the job and others should do 99%?
>
>1% of something is better then 100% of nothing, which is what we have now. In
>any case, I only offered it as outline, which in technical writing is a good
>place to start.
>
But you see, this is exactly the problem. There needs to be the 99% guy.
Ian was that guy for the APRS spec, and so far there is no one for that
job with the APRS IS spec. So you do 1% of the job (a number you admit
is realistic) and then you start flaming others for not doing the 99%!
I'm not going to be the 99% guy, abviously neither are you. So, Bob and
TAPR tell the truth, that there is no other 99% guy in the wings, and you
make their fault. That is extremely unfair!

So yes,

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18. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 15:04:31 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        Keith Sproul <ksproul@vger.rutgers.edu>,
        Mark Sproul <msproul@jove.rutgers.edu>,
        Brent Hildebrand <bhildebrand@earthlink.net>,
        Roger Barker <roger@peaksys.co.uk>,
        Robert Bruninga <bruninga@arctic.usna.edu>
Message-ID: <LYR11589-27708-2001.08.03-14.26.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 3 Aug 2001, Steve Dimse wrote:

> >So, drop the TCPIP* from my suggestion. THus, I think all I am proposing
> >is that SATGATES simply insert their CALL* at the end of the path before
> >inserting into the internet.

> The TCPIP* is used by several things on the APRS IS, I think removing it
> would cause problems, certainly on an unverified connection it would
> cause the data to be dropped.

Yes, but you were correct that it should not be on the packet going INTO
the internet. SO I was only talking about removing it from my
erroneous initial suggestion. Not from things as they are. Whatever an
IGate does to the packet before sending it back to RF (including putting
the TCPIP* on it is a separate issue...)?

Concerning having multiple *'s in a TNC header:

> Which do this? I have never seen it. I'm very unsure my code would not
> break if faced with this, I've never tested it...

It shocked me when I saw it, but the DSP-12's do it...

de WB4APR@amsat.org, Bob

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19. [aprsspec] Re: SATGATE Specification (Draft)

From: "Jeff King" <transit_man@hotmail.com>
Date: Fri, 03 Aug 2001 19:18:13 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-27713-2001.08.03-14.40.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

First of all, you are hearing what you want to hear, and
not what is being said. I don't expect that to change,
but I'll try anyways

Steve Dimse <k4hg@tapr.org> wrote:

>On 8/3/01 2:46 PM Jeff King (jeff@aerodata.net) wrote:
>
> >> >I'm really tired of hearing this broken record from you and TAPR how
>no-one
> >> >volunteers or does anything. It is complete BS.
> >> >
> >> So you think you do 1% of the job and others should do 99%?
> >
> >1% of something is better then 100% of nothing, which is what we have
>now. In
> >any case, I only offered it as outline, which in technical writing is a
>good
> >place to start.
> >
>But you see, this is exactly the problem. There needs to be the 99% guy.

WHY DOES THERE NEED TO BE A 99% guy? Tell me, I'd like to know. And
HOW DO YOU KNOW, I WOULDN'T'T HAVE BEEN THAT 99% GUY? Are you so arrogant
that you actually believe this stuff?

Fact of that matter is, I was looking for some feedback, of which I got
none. I even privately e-mailed you, no response. This is no way for TAPR
to treat volunteers, be they "99% guys" or "1% guys". Every little bit
helps.

>Ian was that guy for the APRS spec, and so far there is no one for that
>job with the APRS IS spec. So you do 1% of the job (a number you admit
>is realistic) and then you start flaming others for not doing the 99%!

Another "I'm Steve and if I say it, it must be true". Who am I flaming
prior to this message? I simply stated, if the WG still exists, then
amendments to the spec should go through it, and prior proposals should

be considered on a first come first server basis.

Please comment on the above and tell me how this is unreasonable.

>I'm not going to be the 99% guy, abviously neither are you.

"And obviously neither are you"? You really are arrogant, aren't you?
I wrote a rough outline.... who is to say I wouldn't have continued on
it if I got some feedback, any feedback. And I certainly still could,
I'd just like a little feedback. I'm sure Ian didn't work in a vacuum
and whoever writes the APRSSERVE spec shouldn't be expected to either.

Read what I post, not what you think I am thinking. It would go a long
way into stopping these Elvis and the Aliens type responses.

Thanks

Jeff

_____
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20. [aprsspec] Re: SATGATE Specification (Draft)

From: "Jeff King" <transit_man@hotmail.com>
Date: Fri, 03 Aug 2001 19:46:01 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27717-2001.08.03-15.08.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Again, read what I say, not what you think I am thinking.

Bob Bruninga <bruninga@usna.edu> wrote:

>On Fri, 3 Aug 2001, Jeff King wrote:
>
> > I posted a rough outline of a internet spec, and had the FTP manager of
>TAPR
> > even open a group about this. ME, not someone else

>Case-in-point. Yep, that is the problem. You tried to get someone to help
>you flesh it out.

Exactly. See we can agree on things occasionally.

>Just like we have requested over and over. But still
>no one has found time to do the work of putting a draft together.

Here is my issue, and lets use Steve's numbers of 1000 hours for a
APRS-SERVE draft.

I don't trust the WG even exists or cares anymore. Maybe it is just me,
but you have to admit, no official action has occured over a year. So
you expect a person, on faith, to invest 1000 hours of there time when
the WG may just be a black hole? If one invests 10 hours of there time,
and cannot get a single comment, encourage or discouraging, that seems
like a good litmus test that no-one really cares or that the WG is just
a black hole.

>I don't
>blame anyone, everyone is busy. But I wish you would stop blaming the WG
>when you also have experienced the same problem. Someone has got to do
>the work and not just whine about it...

I'm not blaming the WG or blaming you.... clearly you put alot of work
into your SATGATE draft and you should be commended for it. And at least
you are getting some comments on here, unlike my experience. (and in
fairness, I just remembered, Bill Diaz did critique it off SIG with me)

But, again, listen to what I was saying. I'm just suggesting that there
is supposed to be a process in place for amendments to the APRS spec.
You claim to be a present member of the WG, so you of anyone should
appreciate what I am saying. I am simply saying that other extensions to
the APRS spec had been proposed in the past, should these not also be
consider at the same time, or ahead of yours?

Unlike others, I don't buy the argument "Well Bob didn't say he was
posting as a member of the WG". That is wishy washing weasel word thinking.
For a
spec to be effective, it has to be enforced. It is a black and white
issue. There is either a process, or there is not a process.

That is *all* I am saying.

>
> > Not a single person commented on my outline, yeah or nay, WG or
>otherwise.
> > You can only try so hard Bob.
>
>That is what we have been saying all along. You claimed to have all these
>volunters all lined up to put together an IGate SPEC...

I made NO SUCH claim. You are thinking of Bill Diaz. I never volunteered
to be on the APRS-WG, and I only offered to help Bill if he didn't have
enough people (and I believe he did have enough). That much being said,
I saw the APRS-Igate spec discussion going no where, so I took some of
my time, and wrote up a rough draft outline hoping to get a few comments
from some of the group. I got nothing.

> > I'm really tired of hearing this broken record from you and TAPR how
>no-one
> > volunteers or does anything.
>
>We don't complain. You are the only one that complains. We simply state
>facts. That is... no one has drafted an IGate SPEC.

So, Ian worked in a vacuum with no prior input from the WG and only
presented the fully polished document. Come on, that is not how a
protocol process works. Sorry, can't fool me because I have been on
some industry groups doing this stuff.

>If somone will take
>the time to draft an IGATE SPEC to document what currently exists, then
>the WG is more than happy to review it

Sure, let me know if this is on the right track:

http://www.tapr.org/tapr/list-archive/aprsspec/0102/msg00024.html

and I'll keep adding to it. Sorry, I am not a fan of "build it and they
will come" mindset and feel this should be a cooperative effort.

>We do not blame volunteers for not volunteering. We simply recognize that
>people that can really get things done are busy. And those that can't
>really contribute anything useful are sometimes pretty good at complaining
>about everyone else...

Complaining? Again, for the point challenged, let me state again what
I was saying here:

If the WG still exists, there is a process for submitting additions
to the protocol. Recognizing this, there are other additions that
were submitted by other people that were tabled. If indeed this
APRS-WG still exists, then these amendments should now be considered.

If you consider the above "complaining", power to you brother, but what
I am saying really seems self evident to me. It either is, or it isn't.
Can't be both at the same time as some would like us to believe. A
protocol spec, to be effective, must be black and white, including the
political process behind it. To do otherwise is to do a disservice to
the ones you wish to enforce this on.

Then again, maybe I am involved in to many industry groups that won't
put up with this kind of stuff..... oh well.

-Jeff

_____
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21. [aprsspec] Come on, folks...

From: Gerry Creager N5JXS <gerry@cs.tamu.edu>
Date: Fri, 03 Aug 2001 15:29:11 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27720-2001.08.03-15.27.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Do you guys have any idea how hard it is to fit any interest into a
discussion of this sort, which really has some interesting AND IMPORTANT
ramifications, when so many different individuals are sniping, whining
or name calling?

Can we, for a little while, ease off and stick to technical aspects of
the discussion? No personal vendetta, no dismisal out of hand because
of who said it, no off-color remarks and no name calling?

Thanks.
--
Gerry Creager
AATLT/Network Engineering
Texas A&M University
979.458.4020 (Phone)   979.847.8578 (FAX)

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22. [aprsspec] SATGATE Specification (rev 1)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 16:10:42 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27725-2001.08.03-15.32.56--lyris.aprsspec#tapr.org@lists.tapr.org>
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Here is the SATGATE proposal completely REDONE to correct my confusing use
of the TCPIP* alias. Also, I have re-written it to distniguish between
"requirements" and "preferences"...

APRS SATGATE Specification (draft)

PURPOSE:

With ISS, OPAL and UO22 in orbit and digipeating APRS packets and the
imminent launch of PCsat and SAPPHIRE, we need a consistent and backwards
compatible way to build SATGATES for injecting APRS packets into the APRS
Internet system. The existing IGate process has no traceability to the
source of the packet. This proposal attempts to identify the SATGATE
using the existing DIGIPEATER fields for backwards compatibility.

BACKGROUND: There are now and will be more SPACECRAFT that DIGIPEAT AX.25
packets: (Those marked with * launch in Sept 2001)
  ISS   via NOCALL, downlink 145.800 1200 baud
  UO22 via UOSAT5, downlink 435.120 9600 baud +/- Doppler
  OPAL via KF6RFX, downlink 437.100 9600 baud +/- Doppler
  *PCsat via PCSAT, downlink 145.825 and 144.39 1200 and 9600 baud
  *SAPPHIRE v TBD, downlink 437.100 1200 baud +/- Doppler
  *STARSHINE periodic telemetry donwlink on 145.825 9600 baud

Of these, ISS and PCsat will be the most popular by far, since they are
EASY to do with an OMNI whip antenna and NO Doppler tuning and 1200 baud.

ASSUMPTIONS: UI Packets heard on the downlinks will be from either the
satellite itself or a digipeated packet from a user of the form:

```
   SATCALL>TOCALL:telemetry.or.other.data   (From the satellite)
   FROMCALL>TOCALL,SATLITE*:packet.data.... (from users)

Where the SATLITE* indicates the packet was digipeated from that
Satellite. The purpose of this SATGATE SPEC is to define what happens to
the packet once it hits the ground.  We want to identify on WHAT downlink
it was heard and WHICH SATGATE injected it into the APRS Internet system.
To this end, I propose the following requirement:

REQUIREMENT:  Satgates will take the ASCII TAPR-2 header of such packet
and rebuild it to ADD the SATGATE's CALLSIGN* after the last existing
DIGI* before injecting the ASCII TAPR-2 header and packet into the
Internet.  THus, it simply looks like the SATGATE "digipeated" the
packet.  In other words, it then looks like this:

   SATCALL>TOCALL,SATGATE*:telemetry.or.other.data
   FROMCALL>TOCALL,SATELITE*,SATGATE*:packet.data....

COMMENT:  Steve has pointed out that some existing software may croak on
seeing two or more **'s, but I note that the DSP-12 TNC has always used
multiple **'s and so this is not a new precedent.  Existing code has to
already search for the last * in the path to be compatible with this TNC.

OPERATIONAL PREFERENCES:  WHen SATGATE operators set up their SATGATE, I
think it would be nice if SATGATES chose a consistent SSID associated with
each of its receiver ports so that we can tell on which port a packet was
heard.  THus, I suggest SYSOPS use the following SSID defaults for their
SATGATE callisigns:

   YOURCALL-1  1200 baud  on 145.825   (PCsat-1 operates there)
   YOURCALL-2  9600 baud  on 145.825   (PCsat-2 operates there)
   YOURCALL-5  9600 baud  on 435.120   (UOSAT5 operates there)
   YOURCALL-7  1200 baud  on 437.100   (SAPPHIRE operates there)
   YOURCALL-12 9600 baud  on 144.39    (PCsat can operate there)*
   YOURCALL-15 1200 baud  on 145.800   (ISS operates there)

Note that PCsat also has the capability to downlink BULLETINS on 144.39
over North America, but these will be used infrequently and will get into
the existing APRS IGate system independent of this proposal.  THey will be
treated as any other IGated raw packet.  For planning purposes, such
packets will be either FROM or VIA the calls of PCSAT-11 or PCSAT-12.

de WB4APR@amsat.org, Bob


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23. [aprsspec] Re: SATGATE Specification (Draft)

```
From: Steve Dimse <k4hg@tapr.org>
Date: Fri, 3 Aug 2001 16:19:12 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27727-2001.08.03-15.41.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/3/01 3:18 PM Jeff King (transit_man@hotmail.com) wrote:

>>But you see, this is exactly the problem. There needs to be the 99% guy.
>
>WHY DOES THERE NEED TO BE A 99% guy? Tell me, I'd like to know. And
>HOW DO YOU KNOW, I WOULDN'T'T HAVE BEEN THAT 99% GUY? Are you so arrogant
>that you actually believe this stuff?
>
Yes, I actually believe it, though I don't think it is arrogant to do so.
There has to be a 99% guy. Maybe the number isn't always 99%, but it is
almost always greater than 50%. And that 99%, or 51%, or whatever need
not be measurable in lines of code or documentation, but if not, it is
there in terms of vision, drive and management. 99%, or even 51%, of
Linux isn't written by Linus, but he provides the vision and management
that makes it happen.

The size of the project determines whether what is needed is a guy to do
the grunt work or the management. In a small project, like findu.com,
most efficient is a code guy. In a huge project, like Apache or Linux,
you need a management guy (or in either case a very small group that are
```

able to function as an individual).

How do I know you aren't the 99% guy? That's so obvious I can't believe
you would ask. You are so busy trying to belittle the efforts of others
and cause general discontent, that you could not possibly do 99% of even
the most trival APRS project. As proof, I offer the following list of
your contributions to APRS over the last 4 years (feel free to correct
all those things I missed):

--------Begin List---------
1% of the APRS IS spec
---------End List----------

This list isn't almost empty because you are incapable of contributing.
On the contrary, it is obvious you are a very intelligent and skilled
engineer. It is empty because for whatever reason you choose not to
contribute. What is that reason? Wouldn't it be more fun to create
something useful than to knock other people all the time?

>Fact of that matter is, I was looking for some feedback, of which I got
>none. I even privately e-mailed you, no response. This is no way for TAPR
>to treat volunteers, be they "99% guys" or "1% guys". Every little bit
>helps.
>
As I expalined to you, I didn't comment because there was no work
expressed there. There was nothing new, no original thought or effort.
I'd contrast that to the work of Ian, where he synthesized large amounts
of material into wonderfully written, understandable, attractively
formatted prose. He dug into the spec, wrote programs to understand how
the parsing would work, found errors, and generally ran the whole show.
To imtimidate that you are to the APRS IS spec what Ian was the the APRS
spec is lunacy! I can't believe you would be so vain as to even hint at
that!!!!
>
>>Ian was that guy for the APRS spec, and so far there is no one for that
>>job with the APRS IS spec. So you do 1% of the job (a number you admit
>>is realistic) and then you start flaming others for not doing the 99%!
>
>Another "I'm Steve and if I say it, it must be true". Who am I flaming
>prior to this message?
>
No,

On 8/3/01 2:22 PM Jeff King (jeff@aerodata.net) wrote:
>
>I'm really tired of hearing this broken record from you and TAPR how no-one
>volunteers or does anything. It is complete BS.

You are flaming TAPR and Bob for not doing the 99%, It is not complete
BS. Many people are glad to contribute ideas, offers of help, and 1% of
the work. However, when it come down to the nitty-gritty work, no one
does it. Ian was a wonderful exception to that, as are a number of other
people on this list. However neither you, myself, the APRS WG, or anyone
else is able to assign tasks to these very few doers. They all have their
own lives and priorities, and every right to do those things, and only
those things, that interest them.

There many more people on this list that could be doers, but for whatever
reason chose not to. That is the single thing about APRS I'd most like to
change. We have an enormous number of talented and competent people that
could contribute, but for whatever reasons never do. A few not only don't
contribute, but seem to take pride in dragging down the work of others,
this is the greatest drag of all.

I believe Bob when he says the APRS WG would consider the APRS IS spec
were someone to do it. Certainly if someone were to do it, I'd do
everything in my power as a TAPR board member and leader in the APRS
community to make sure it got approval, or had whatever modifications
were necessary to assure its approval.

>I simply stated, if the WG still exists, then
>amendments to the spec should go through it, and prior proposals should
>be considered on a first come first server basis.

This was not a proposal to the APRS WG. That you and I saw it is proof of
that. This was something Bob proposed publicly because he felt it was a
priority issue. To be honest, I don't see the need, but instead of

debating the proposal on its merits or lack thereof, you chose to attempt
to use it as a soapbox to show how no one else wants to follow up and do
the 99% of the job you just barely started.
>
>"And obviously neither are you"? You really are arrogant, aren't you?
>I wrote a rough outline.... who is to say I wouldn't have continued on
>it if I got some feedback, any feedback. And I certainly still could,
>I'd just like a little feedback. I'm sure Ian didn't work in a vacuum
>and whoever writes the APRSSERVE spec shouldn't be expected to either.
>
Actually, Ian did work largely in a vacuum. That he did 99% of the work
is really not much of an exaggeration. If he stopped because he wasn't
getting feedback, the spec would be about three pages long, not the
wonderful 100+ pages we have now. That's why I know you aren't the 99%
guy for this project. If you were, you'd be writing now instead of
complaining that no one gave you feedback!

>Read what I post, not what you think I am thinking. It would go a long
>way into stopping these Elvis and the Aliens type responses.
>
Elvis is dead, and there are no aliens. Get over it!

Steve K4HG

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24. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 3 Aug 2001 16:50:30 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27739-2001.08.03-16.13.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 3 Aug 2001, Jeff King wrote:

> I don't trust the WG even exists or cares anymore. Maybe it is just me,

Yes, it is just you. And frankly, since 96% of all traffic on the
APRSSPEC list is just your continued rehashing of your continuing
complaints, probably most everyone else just ignores 100% of the postings.
They have lives to live.

Thus, we cannot get anything done here when each technical posting results
in a week of drivell and dozens of useless rehashing of your endless
barnburning... Take this recent SATGATE proposal. I count ONE technical
feed back and 21 Emails about your bitching. That is why nothing gets
done here. No one wants to sort through all your BS to find the point at
hand.

> but you have to admit, no official action has occured over a year.

Sorry, we may not have done what YOU wanted, but we accomplished
quite a lot. Just a quick scan of the log and we did several things:

1) Resolved the use of NOGATE, RFONLY and other OPT-OUT mechanisms
2) Resolved how Mic-E packets should be passed through the internet
3) Approved the /E=XXXX expiration extension to OBJECTS
4) Issued a revised DESTINATION TOCALL list
5) Began a listing of USER DEFINED FORMATS
6) Endorsed an APRSSPEC users attempt to draft an IGate SPEC
7) Resolved the need for fixed position "g" or "t" in WX reports.
8) Read through hundreds of rantings and ravings by Jeff

> you expect a person, on faith, to invest 1000 hours of there time when
> the WG may just be a black hole?

I agree, most of your rantings and ravings go in the black-hole. They
are mostly of no technical merrit, just constant complaining about how you
want everyone else to do the work.. Each of the members of the WG has
invested not 1000 hours but more like 8,000 hours or more...

> >We don't complain. You are the only one that complains. We simply state
> >facts. That is... no one has drafted an IGate SPEC.
>
> So, Ian worked in a vacuum with no prior input from the WG and only

> presented the fully polished document. Come on, that is not how a
> protocol process works.

YOU ARE RIGHT. THAT IS NOT HOW IT WORKS. Ian was given my COMPLETE
APRSdos PROTOCOL documents and from that he edited it into the SPEC
format. EVERYTHING WAS THERE. He EDITED it and pointed out any conflicts
or errors and the WG worked to resolve those into a final document.
But 99% of the protocol WAS DOCUMENTED BEFORE the SPEC WORK even began.

Now, as we say over and over and over and over again to you JEFF, there is
no draft IGate SPEC. And no matter how much you complain, there is no
SPEC for the APRS WG to review nor approve until SOMEONE prepares a
complete draft and submits it for review.

de WB4APR@amsat.org, Bob

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25. [aprsspec] Re: SATGATE Specification (rev 1)

From: Bill Vodall <wa7nwp@yahoo.com>
Date: Fri, 3 Aug 2001 21:28:24 +0000 (GMT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27748-2001.08.03-16.50.32--lyris.aprsspec#tapr.org@lists.tapr.org>
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A possible issue... If using APRStk or future equivalent with
a D7/D700 to monitor for packets - we'd need software a bit
smarter so it could switch the outgoing ALIAS and the local
SSID on the Igate at the same time the frequency was switched.

Not a big thing, just something that will make it more
interesting.

> THus, I suggest SYSOPS use the following SSID defaults
> for their SATGATE callisigns:
>
>   YOURCALL-1 1200 baud on 145.825   (PCsat-1 operates there)
>   YOURCALL-2 9600 baud on 145.825   (PCsat-2 operates there)
>   YOURCALL-5 9600 baud on 435.120   (UOSAT5 operates there)
>   YOURCALL-7 1200 baud on 437.100   (SAPPHIRE operates there)
>   YOURCALL-12 9600 baud on 144.39   (PCsat can operate there)*
>   YOURCALL-15 1200 baud on 145.800   (ISS operates there)

And as for the multiple * on heard digi's, the Linux AX25 listen
function shows them that way. I don't think it has any bearing
hear as what's being discussed is how they get sent to the Igates
which is a different process.

Bill - WA7NWP

_____
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26. [aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 21:11:46 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27793-2001.08.03-20.32.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I notice you have yet to address what started this. That is, the
protocol process.

Steve Dimse wrote:
>
> On 8/3/01 3:18 PM Jeff King (transit_man@hotmail.com) wrote:
>
> >>But you see, this is exactly the problem. There needs to be the 99% guy.
> >
> >WHY DOES THERE NEED TO BE A 99% guy? Tell me, I'd like to know. And
> >HOW DO YOU KNOW, I WOULDN'T'T HAVE BEEN THAT 99% GUY? Are you so arrogant
> >that you actually believe this stuff?
> >
> Yes, I actually believe it, though I don't think it is arrogant to do so.
> There has to be a 99% guy. Maybe the number isn't always 99%, but it is
> almost always greater than 50%.

First of all, once again, you take things out of context. This "1% figure" you keep citing was the first step in the process in any contributory tech writing endervor. This is no different then colarbrative groups in indusrty do it. A draft outline that was sent directly
to you for a reality check that you REFUSED to even comment on. The fact that the founder of APRSSERVE refused to comment on it, just like you continuing unfounded attacks on me, was discouraging. And in any case, 99% and 50% are not the same number.

As to arrogant, I was referring to your general attitude which has been formed over the years, and recently reinforced today in private e-mail when you made some discouraging remarks about another party here. Just your general demeanor... actually I think it is part of your education, I've noticed it among other ER doctors I have know over the years. You might want to leave that at the door.

> And that 99%, or 51%, or whatever need
> not be measurable in lines of code or documentation, but if not, it is
> there in terms of vision, drive and management. 99%, or even 51%, of
> Linux isn't written by Linus, but he provides the vision and management
> that makes it happen.

What vision in APRS are we referring to?

> The size of the project determines whether what is needed is a guy to do
> the grunt work or the management. In a small project, like findu.com,
> most efficient is a code guy. In a huge project, like Apache or Linux,
> you need a management guy (or in either case a very small group that are
> able to function as an individual).

Yet we are talking about a formal protocol process, a far cry from your closed source project FINDU. Protocol development, in particular now, needs to be a open process, one where the "1% guys" you are so fond of belittling can contribute.

> How do I know you aren't the 99% guy? That's so obvious I can't believe
> you would ask. You are so busy trying to belittle the efforts of others
> and cause general discontent, that you could not possibly do 99% of even
> the most trival APRS project.

Lets see, how do I say you are full of it a nice way? Can't think of a way to do it. All I stated here was that there were prior proposals on the table for protocol additions that should be addressed also, if the process still exists or is open. Why do you have such a problem with the obvious and why do you equate stating the obvious to "belittling the efforts of others"? You make all these statements you can't back-up...

> As proof, I offer the following list of
> your contributions to APRS over the last 4 years (feel free to correct
> all those things I missed):
>
> --------Begin List---------
> 1% of the APRS IS spec
> ---------End List----------

Well, besides being arrogant, you also are dishonest as well. Suprise suprise... now the question is should I even bother to counter your claims? Oh, why not, I'm sure you'll be able to find some fault with them as well, I trust you Steve to only see what you want to see and do your best to minimize and degrade the contributions of others.

http://www.mich.com/~jeff/fluxgate.gif
http://www.mich.com/~jeff/DUC+CDPD.jpg
http://www.mich.com/~jeff/educopen.jpg

ftp://ftp.tapr.org/picsig/software/a-compass.zip
ftp://ftp.tapr.org/picsig/software/gpsewka.zip
http://www.mich.com/~jeff/vcu-pcb.png

and of course, many many other things besides APRS.

> This list isn't almost empty because you are incapable of contributing.
> On the contrary, it is obvious you are a very intelligent and skilled
> engineer. It is empty because for whatever reason you choose not to
> contribute. What is that reason? Wouldn't it be more fun to create
> something useful than to knock other people all the time?

Again, you have come to a conclusion that the facts don't entirely support.
Your seeing something, or misunderstanding something, that is just not there.
I will admit to being less the tactful far to often, but the message is stays
the same. Since you are again making a accusation, who am I knocking over? I
think you are confusing the expectation
of ethical behavior with knocking people down. Maybe a fine line, but it
is a line. If one accepts the responsibility of administering a standards
group, a group the can exert influence on both the individual and industry,
one should expect ethical behavior. Allowing insiders proposals to be heard and
accepted while outsiders protocol amendments remain tabled, seems unethical
to me.

Now, was I accusing someone of purposeful unethical behavior? No, not at all.
I just was pointing out the appearance of unethical behavior. It is a fine
line, and bottom line, someone has to care. From what I have seen, the appearance
of ethics within certain groups is not a high priority.

>
> >Fact of that matter is, I was looking for some feedback, of which I got
> >none. I even privately e-mailed you, no response. This is no way for TAPR
> >to treat volunteers, be they "99% guys" or "1% guys". Every little bit
> >helps.
> >
> As I expalined to you, I didn't comment because there was no work
> expressed there. There was nothing new, no original thought or effort.

Another attaboy for Jeff, huh? Maybe TAPR should appoint you as the new
volunteer recruiter?

And what was "not new" or "not original" about these points I raised?

from http://www.tapr.org/tapr/list-archive/aprsspec/0102/msg00024.html
**Extensions to messaging
        RF message gateway selection
        Least hop routing
        Least power routing

Who, besides me, in a public forum, have you ever heard discuss least power
routing in the context of APRS? And for that matter, even routing? BTW,
Bill Diaz suggested I remove the extensions as he felt just get the basics
first. I agreed with him, yet there it is out in the open.

As I said, you see what you want to see.

> To imtimidate that you are to the APRS IS spec what Ian was the the APRS
> spec is lunacy! I can't believe you would be so vain as to even hint at
> that!!!!

Are you on drugs or something? All I said is Ian didn't work in a vacuum. Pull
yourself together Steve.

> On 8/3/01 2:22 PM Jeff King (jeff@aerodata.net) wrote:
> >
> >I'm really tired of hearing this broken record from you and TAPR how no-one
> >volunteers or does anything. It is complete BS.
> -------
>
> You are flaming TAPR and Bob for not doing the 99%, It is not complete
> BS.

Then cite what I am saying, otherwise it is yet another Stevism. AGAIN, for the
challenged, I am saying it is improper to move ahead with additions to
the spec unless the tabled additions are also addressed. Real simple but

one has to have some understanding of ethics to grasp that. Possibly this
is the common ground we lack.

> I believe Bob when he says the APRS WG would consider the APRS IS spec
> were someone to do it.

So, by your estimates, someone will invest 1000 hours in the spec, in a
vacuum, with no feedback from the major players, and then the WG will
consider it? Thanks, but I'll pass on that one. I need feedback that I am
on the right track.

> >I simply stated, if the WG still exists, then
> >amendments to the spec should go through it, and prior proposals should
> >be considered on a first come first server basis.
>
> This was not a proposal to the APRS WG. That you and I saw it is proof of
> that.

That you and I saw it is proof? I don't understand that statement. The amendments
I saw that were proposed to the working group, and then tabled, were also posted
here. The thing you DON'T understand, that if you going to have a spec, you need to
have a process FOR that spec. It is a black and white issue. It either is, or it
isn't. It can't change depending on who is proposing something nor should it be
excused. It is a fundamental issue.

> This was something Bob proposed publicly because he felt it was a
> priority issue. To be honest, I don't see the need, but instead of
> debating the proposal on its merits or lack thereof, you chose to attempt
> to use it as a soapbox to show how no one else wants to follow up and do
> the 99% of the job you just barely started.

Again, here we go with the Stevisms again. Your the one doing this 99% of nothing
argument. Again, for the challenged, this is what I was saying:

 I am saying it is improper to move ahead with additions to
 the spec unless the tabled additions are also addressed.

> >Read what I post, not what you think I am thinking. It would go a long
> >way into stopping these Elvis and the Aliens type responses.
> >
> Elvis is dead, and there are no aliens. Get over it!

OK, gladly, is there a medical diagnose for only seeing what you want to
see? This discussion had nothing to do with Ian, APRS internet, 99% of nothing
or power poles. It had everything to do with a process, and applying that process
in a fair and equitable manner. All I have hear here are excuses and attempts
to divert the issue.

And all I am guilty of is pointing out the obvious. I'm sorry it hurts, but no matter
how much you attack and belittle my accomplishments, I'm not going to back down. Ethics
and the appearance of ethics do matter in a volunteer organization.

-Jeff

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27. [aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 21:31:27 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27795-2001.08.03-20.51.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
>
> On Fri, 3 Aug 2001, Jeff King wrote:
>
> > I don't trust the WG even exists or cares anymore. Maybe it is just me,
>
> Yes, it is just you.

Really? I've seen more then few say the same things here. Certainly the lack of
any activity or effort to replace the missing members makes it seem that way.

> And frankly, since 96% of all traffic on the
> APRSSPEC list is just your continued rehashing of your continuing
> complaints, probably most everyone else just ignores 100% of the postings.
> They have lives to live.

96% of all traffic? Care to document that claim?

BTW, some people do take ethic's concerns (or complaints as you put it) seriously.

> Thus, we cannot get anything done here when each technical posting results
> in a week of drivell and dozens of useless rehashing of your endless
> barnburning... Take this recent SATGATE proposal. I count ONE technical
> feed back and 21 Emails about your bitching. That is why nothing gets
> done here. No one wants to sort through all your BS to find the point at
> hand.

You really don't understand ethics do you? You have two votes on the WG, more
then any single member. People who were NOT members of the working group have
made similar amendment proposals in the past as you are now. There proposals
were tabled for a latter time.

All I am suggesting is if it is good for the goose, it is good for the gander.
If you want your amendment considered, it is only fair and equitable that all
the tabled amendments be considered.

Why is this so hard to understand for you?

> > but you have to admit, no official action has occured over a year.
>
> Sorry, we may not have done what YOU wanted, but we accomplished
> quite a lot. Just a quick scan of the log and we did several things:
>
> 1) Resolved the use of NOGATE, RFONLY and other OPT-OUT mechanisms

What I wanted? Actually, I was one of the big proponents of the "NOGATE"
spec, so I guess I owe you some thanks. Where in the spec does it say this?

> 8) Read through hundreds of rantings and ravings by Jeff

Glad to be of service to you.

> > you expect a person, on faith, to invest 1000 hours of there time when
> > the WG may just be a black hole?
>
> I agree, most of your rantings and ravings go in the black-hole. They
> are mostly of no technical merrit, just constant complaining about how you
> want everyone else to do the work.. Each of the members of the WG has
> invested not 1000 hours but more like 8,000 hours or more...

Buzz light year, to infinite and beyond! So, lets seem 10 members times
8000 hours = 80,000 man hours. Are you sure you might not be over estimating?

> > >We don't complain. You are the only one that complains. We simply state
> > >facts. That is... no one has drafted an IGate SPEC.
> >
> > So, Ian worked in a vacuum with no prior input from the WG and only
> > presented the fully polished document. Come on, that is not how a
> > protocol process works.
>
> YOU ARE RIGHT. THAT IS NOT HOW IT WORKS. Ian was given my COMPLETE
> APRSdos PROTOCOL documents and from that he edited it into the SPEC
> format. EVERYTHING WAS THERE. He EDITED it and pointed out any conflicts
> or errors and the WG worked to resolve those into a final document.
> But 99% of the protocol WAS DOCUMENTED BEFORE the SPEC WORK even began.

GOOD, now tell that to Steve. That is exactly what I meant. Ian had some
kind of basis to work with, I start to assemble a basis to work with
(Steve's 1% argument) and I am ignored/attacked over it by a principle.

> Now, as we say over and over and over and over again to you JEFF, there is
> no draft IGate SPEC. And no matter how much you complain, there is no
> SPEC for the APRS WG to review nor approve until SOMEONE prepares a

> complete draft and submits it for review.

I don't disagree with this statement, I'm just suggesting whoever does this,
you/Steve/whoever give some feedback to while they work on it. For the volunteer
organization challenged, this is called positive feedback. As you point out,
the APRSINET documentation, what little exists, is disjointed and not coherent.
Whoever takes this task on is at a distinct disadvantage as compared to the
drafters of the APRSSPEC document. Your documentation going into that process
was fairly complete.

You may want to reexam your volunteer requirements for APRSINET writer. I don't
see how a coherent document can be developed in a vacuum. Some feedback will
be required.

-Jeff

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28. [aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 22:05:51 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27800-2001.08.03-21.26.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

"Sadowski, Allan" wrote:
>
> I have to concur with Jeff on this... at a minimum it should have been
> formally announced that the working group was re-opening itself to
> considering extensions..

Thanks Allan. It is good to see some clear focused thinking here suggesting a
solution.

This really is a black and white issue. It either is, or it isn't. The excuses
that this was not a formal proposal to the WG don't hold any water because the
person making the proposal is the anchor (with 2 votes) of the WG. As such, lack
of understanding of the process is not the issue. It either is, or it isn't.

> What's good for one should be good for all...

Advice well said.

-Jeff

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29. [aprsspec] Re: SATGATE Specification (Draft)

From: "Wes Johnston" <wes@johnston.net>
Date: Fri, 3 Aug 2001 22:12:51 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27801-2001.08.03-21.34.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

can you take a hint and can the copying of the sig on this USELESS thread.
Drop it please.....

100% Wes

----- Original Message -----
From: "Jeff King" <jeff@aerodata.net>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Friday, August 03, 2001 21:31
Subject: [aprsspec] Re: SATGATE Specification (Draft)

>
>
> Bob Bruninga wrote:

> >
> > On Fri, 3 Aug 2001, Jeff King wrote:
> >
> > > I don't trust the WG even exists or cares anymore. Maybe it is just
me,
> >
> > Yes, it is just you.
>
> Really? I've seen more then few say the same things here. Certainly the
lack of
> any activity or effort to replace the missing members makes it seem that
way.
>
>
> > And frankly, since 96% of all traffic on the
> > APRSSPEC list is just your continued rehashing of your continuing
> > complaints, probably most everyone else just ignores 100% of the
postings.
> > They have lives to live.
>
> 96% of all traffic? Care to document that claim?
>
> BTW, some people do take ethic's concerns (or complaints as you put it)
seriously.
>
>
> > Thus, we cannot get anything done here when each technical posting
results
> > in a week of drivell and dozens of useless rehashing of your endless
> > barnburning... Take this recent SATGATE proposal. I count ONE technical
> > feed back and 21 Emails about your bitching. That is why nothing gets
> > done here. No one wants to sort through all your BS to find the point
at
> > hand.
>
> You really don't understand ethics do you? You have two votes on the WG,
more
> then any single member. People who were NOT members of the working group
have
> made similar amendment proposals in the past as you are now. There
proposals
> were tabled for a latter time.
>
> All I am suggesting is if it is good for the goose, it is good for the
gander.
> If you want your amendment considered, it is only fair and equitable that
all
> the tabled amendments be considered.
>
> Why is this so hard to understand for you?
>
>
> > > but you have to admit, no official action has occured over a year.
> >
> > Sorry, we may not have done what YOU wanted, but we accomplished
> > quite a lot. Just a quick scan of the log and we did several things:
> >
> > 1) Resolved the use of NOGATE, RFONLY and other OPT-OUT mechanisms
>
> What I wanted? Actually, I was one of the big proponents of the "NOGATE"
> spec, so I guess I owe you some thanks. Where in the spec does it say
this?
>
> > 8) Read through hundreds of rantings and ravings by Jeff
>
> Glad to be of service to you.
>
>
> > > you expect a person, on faith, to invest 1000 hours of there time when
> > > the WG may just be a black hole?
> >
> > I agree, most of your rantings and ravings go in the black-hole. They
> > are mostly of no technical merrit, just constant complaining about how
you
> > want everyone else to do the work.. Each of the members of the WG has
> > invested not 1000 hours but more like 8,000 hours or more...
>
> Buzz light year, to infinite and beyond! So, lets seem 10 members times
> 8000 hours = 80,000 man hours. Are you sure you might not be over

estimating?
>
> > > >We don't complain. You are the only one that complains. We simply
state
> > > >facts. That is... no one has drafted an IGate SPEC.
> > >
> > > So, Ian worked in a vacuum with no prior input from the WG and only
> > > presented the fully polished document. Come on, that is not how a
> > > protocol process works.
> >
> > YOU ARE RIGHT. THAT IS NOT HOW IT WORKS. Ian was given my COMPLETE
> > APRSdos PROTOCOL documents and from that he edited it into the SPEC
> > format. EVERYTHING WAS THERE. He EDITED it and pointed out any
conflicts
> > or errors and the WG worked to resolve those into a final document.
> > But 99% of the protocol WAS DOCUMENTED BEFORE the SPEC WORK even began.
>
> GOOD, now tell that to Steve. That is exactly what I meant. Ian had some
> kind of basis to work with, I start to assemble a basis to work with
> (Steve's 1% argument) and I am ignored/attacked over it by a principle.
>
> > Now, as we say over and over and over and over again to you JEFF, there
is
> > no draft IGate SPEC. And no matter how much you complain, there is no
> > SPEC for the APRS WG to review nor approve until SOMEONE prepares a
> > complete draft and submits it for review.
>
> I don't disagree with this statement, I'm just suggesting whoever does
this,
> you/Steve/whoever give some feedback to while they work on it. For the
volunteer
> organization challenged, this is called positive feedback. As you point
out,
> the APRSINET documentation, what little exists, is disjointed and not
coherent.
> Whoever takes this task on is at a distinct disadvantage as compared to
the
> drafters of the APRSSPEC document. Your documentation going into that
process
> was fairly complete.
>
> You may want to reexam your volunteer requirements for APRSINET writer. I
don't
> see how a coherent document can be developed in a vacuum. Some feedback
will
> be required.
>
> -Jeff
>
> ---
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>
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

30. [aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 22:17:09 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27804-2001.08.03-21.37.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Wes Johnston wrote:
>
> can you take a hint and can the copying of the sig on this USELESS thread.
> Drop it please.....
>
> 100% Wes

Ethics == Useless?

100% wrong

-Jeff

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31. [aprsspec] WG protocol process (was Satgate)

From: Jeff King <jeff@aerodata.net>
Date: Fri, 03 Aug 2001 23:14:48 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27813-2001.08.03-22.35.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Missed a few insults earlier so now catching up. For the ones that don't know
what a delete key is, just think of me as the nasty poodle on the WG's leg.

Bob Bruninga wrote:
>
> On Fri, 3 Aug 2001, Sadowski, Allan wrote:
>
> > I have to concur with Jeff on this... at a minimum it should have been
> > formally announced that the working group was re-opening itself to
> > considering extensions..
> <snip>
>
> Huh? Tabloid missinformation again?

What is "Tabloid misinformation" about this?

Seems like a fair proposal to me. Why do you a issue with playing fair in the
sandbox?

-Jeff

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32. [aprsspec] NOGATE & RFONLY in the APRS(tm) spec? [was: SATGATE Specification (Draft)]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sat, 04 Aug 2001 08:15:37 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27873-2001.08.04-07.39.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob B. wrote...
> > Sorry, we may not have done what YOU wanted, but we accomplished
> > quite a lot. Just a quick scan of the log and we did several things:
> >
> > 1) Resolved the use of NOGATE, RFONLY and other OPT-OUT mechanisms

Truth be told, I can't find NOGATE or RFONLY in the spec document. Did
the APRSwg adopt it officially? On the other hand, RFONLY (along with
[GR##ID]-in-comment) has been part of the BEACONet protocol for quite
some time.

I would be suprised to find that it had been included, since I was an
initial proposer of the alias, and hadn't had the opportunity to review
how the function was documented so as to correctly describe it's
personality should the APRS world wish to include it as a compatible
alias.

Of course, several software authors have thankfully chosen to include
this non-APRS yet BEACONEt-friendly function in their product and have
enjoyed the free advertising that comes along with having done so for
the BEACONet community. Example: UI-View was featured in the May 2001
QST article. AHub will probably be placed in operation within the next
60-days as a BEACONet Internet system, and will probably be featured in
future articles written about BEACONet, too. fwiw.

Ev, W2EV

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33. [aprsspec] Focus [was: SATGATE Specification (Draft)]

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sat, 04 Aug 2001 09:00:31 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-27883-2001.08.04-08.24.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As succinctly as I can put it...

o Bob proposed an addition to the APRS(tm) Protocol Specification
o Jeff asked about the process for official sanctioning of an
  APRS(tm) protocol addition/modification
  - See APRS Protocol Working Group Charter
    = Section II, item 5

Yet, APRS(tm) Working Group Charter (available for viewing at:
http://www.tapr.org/tapr/html/Faprswg.html), Section V spells the
APRS(tm) Protocol proposal-process out pretty well -- leaving little to
the imagination.

The first question is... (to the APRS wg): would someone point us to the
website where the proposals are posted (APRSwg Charter, Section V,
"Committee Operations and Community Input", Item 1)? There, we should
see things like the RFONLY/NOGATE proposal, maybe?

That should go a long way to settle alot of misunderstanding and
misinformation. Thanks, guys!

Ev, W2EV

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34. [aprsspec] Re: SATGATE Specification (Draft)

From: "Sadowski, Allan" <allan.sadowski@ncshp.org>
Date: Sun, 5 Aug 2001 08:27:25 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28102-2001.08.05-07.48.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I certainly respect your opinion Wes... also Bob's and Steve's... and mine
is that I think Jeff has some valid points... like a now retired good Boss
told me... ignore the tone of how the message is delivered... pay attention
to the actual content... a frustrated customer cannot help but have a poor
attitude and tone of voice... but in all likelihood there is good
information in their lament... focus on the content of the message and how
that will improve the product not on the tone and attitude of the delivery -
then we will be able to deliver better service to all eventually.

I'm on a we should thank the US Department of Defense more often kick
today... pardon my editorial.

Yes, Bob started GPS packets over RF for ham radio... (though the Military
did the same before APRS) and we have him to thank for bringing this to Ham
radio... and Steve has made the same information readily available via
internet connectivity (which also came from the Military)... they did what
they did (both significant and painful efforts) - not by a formalized
process and committee - but by individual efforts... kudo's to them both
because these efforts were NOT Trivial... and they've both taken heat from
complainers and do-nothings - ever since.... I'm sure they are tired of
it... However, I have to admit Jeff has valid points... having been part of
some non hobby - military and industry efforts - it has been my experience
that there are leaders who talk a lot (and shape the direction of the
effort)... but they are but no means the most significant contributor...
just the most visible one... that group efforts are in fact the rule, and
that many significant contributions really have been made by time limited
individuals... but more to the point... that the formal review and approval
process - which built the internet by the way - has time and again made a
significant difference to the benefit of all in the end. I wish I had a
dime for every attempt I've dealt with on the part of a vendor... to make
proprietary extensions to a standard.... and I am so thankful for the review
process (as Ian did) as it was a way to catch those (and other) issues
before they became bigger problems.

So, as I understand Jeff's comments - I think he has a valid point - - -
that the process for APRS protocol additions and changes should be equitable
- that other proposals have been made here and not considered... and that
there's some question about the continued viable existence of the working
group. I ignore the rest (because I am very interested in the answers to
those three questions).

I may be wrong, but I think Jeff's question raised a good point... if we
are going to consider Bob's extensions (and there is a short time to bring
that in line due to the upcoming launches) - then that was a clue that the
working group was considering extensions and changes... so let's get those
others on the table - and that a announcement of these extensions is also
appropriate. After all, we were told here in the past that no additions or
extensions were being entertained by the working group until the initial
spec was captured... and since the SPEC was "published" - proposals have
been ignored or publicly slammed here on the SIG as non-compatible.... well
I for one would like the working group to please re-state here on the spec
discussion list... what the process is for proposing additions to the spec -
and who gets to review them - who determines they are blessed? and what is
the priority for review? and.. oh by the way... (I can take a hint... but I
have to ask) are extensions and modifications even being accepted at all yet
- because I never saw an announcement of such - not that there was a
requirement... but courtesy would have made it nice. Do I just throw them
out on this list again??? Then what will be the process for review and
inclusion... just Bob saying yes or the WG getting together behind closed
doors? (I'm being sarcastic - not serious I hope)...

Yes Wes... I too see rather "emotional" and inflammatory statements being
made... but they are coming from all parties... statements that seem to be
more in the vein of a personal attack rather than provide useful content....
and personal attacks stated in a way to appear as questions... does not make
them any less of an attack... But this SPEC discussion list was started to
get spec "discussions" off the primary SIG list... so I'm hoping to hear
more about the formal process ... and I'm willing to ignore the frustrating
tone of the messages... in hopes of learning something... and maybe
ultimately finding out how the process is going to work for extensions and
modifications... and to hear how the Working Group (which was exclusionary
when it was established) is going forward... on Bob's proposal... and
hopefully some from other lesser individuals (sarcasm again) !!?!?!?

Keep'm coming is what I say... just tone down the personal attacks... I
learn from most of this commentary so let's make some progress here and get
some answers - rather than deflecting the questions with personal
attacks!!!

TNX

ALOHA
AH6LS
> ----------
> From: Wes Johnston[SMTP:wes@johnston.net]
> Subject: [aprsspec] Re: SATGATE Specification (Draft)
>
> can you take a hint and can the copying of the sig on this USELESS thread.
> Drop it please.....
>
> 100% Wes
>
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

35. [aprsspec] Re: SATGATE Specification (Draft)

From: Steve Dimse <k4hg@tapr.org>
Date: Sun, 5 Aug 2001 09:53:31 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28110-2001.08.05-09.20.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/5/01 8:27 AM Sadowski, Allan (allan.sadowski@ncshp.org) wrote:

>I may be wrong, but I think Jeff's question raised a good point... if we
>are going to consider Bob's extensions (and there is a short time to bring
>that in line due to the upcoming launches) - then that was a clue that the
>working group was considering extensions and changes... so let's get those
>others on the table -

The point which seems to have gotten lost in the noise is that Bob's
proposal had absolutely nothing to do with the APRS spec or the APRS WG.

The APRS Internet System is not documented or managed by the APRS WG.
Should it be? Yes, but it is not because there is no one to do the grunt
work of writing the spec. Jeff tried to make that TAPR and the APRS WG's
fault, because he began the process but no one stepped forward to help
him. Then he calls me arrogant because I tell the truth, that there must
be a single person willing to lead the effort, and there presently is no
person to be the Ian of the APRS IS spec. Jeff would have you believe
that he is the guy that can lead a project full of open source
documenters, but if that were the case, it would be happening now, and
Jeff would have nothing to complain about, or at least he'd be too busy
to do so.

So, with the APRS WG unable to make any changes in the APRS Internet
System, Bob took his proposal to this list, hoping to get the individuals
that write APRS IS software to make the changes. This does not signal
that the APRS WG is considering any changes to the APRS spec, any more
than if Bob adds a feature to his program it means it is endorsed by the
APRS WG. We all have many different roles, everything Bob says doesn't
involve the APRS WG, everything I say doesn't involve my role as a board
member of TAPR. To me, it is pretty clear which hat I'm wearing at any
given time, but I can see how it might be confusing to others, and in the
future I will try to make such things clearer, perhaps Bob will do so as
well in order to avoid future misunderstandings.

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

36. [aprsspec] Re: SATGATE Specification (Draft)

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 5 Aug 2001 10:56:02 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28123-2001.08.05-10.18.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 5 Aug 2001, Sadowski, Allan wrote:

> I may be wrong, but I think Jeff's question raised a good point... if we
> are going to consider Bob's extensions.. - then that was a clue that the
> working group was considering extensions and changes...

I SAY AGAIN. I AM NOT PROPOSING ANY EXTENSIONS TO THE APRS SPEC!

LET ME BE PERFECTLY CLEAR:

WHAT I ASKED FOR WAS A WAY TO IDENTIFY SATELITE PACKETS THAT WOULD WORK
WITHIN THE EXISTING IGATE SYSTEM.

READ MY LIPS: "WITHIN THE EXISTING IGATE SYSTEM"

THUS I AM NOT PRPOSING ANY "EXTENSIONS" or "ADDITIONS". To do such would
be ludicrous in this environment and it would never happen due to the
process you have just witnessed.

de WB4APR, Bob

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37. [aprsspec] Re: Focus [was: SATGATE Specification (Draft)]

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 5 Aug 2001 11:00:16 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28124-2001.08.05-10.22.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 4 Aug 2001, Ev Tupis wrote:

> As succinctly as I can put it...
>
> o Bob proposed an addition to the APRS(tm) Protocol Specification
> o Jeff asked about the process for official sanctioning of an
>   APRS(tm) protocol addition/modification

WRONG. I MADE NO SUCH PROPOSAL. I AM INVOLVED IN A LAUNCH OF A
SATLLELLITE THAT WE MUST DELIVER IN 3 DAYS, AND LAUNCH IN 3 WEEKS.
I SIMPLY MADE A POST TO *ANYONE INTERESTED* IN WHAT I NEEDED ON THE GROUND
TO SUPPORT THE IGATING OF THE SATELLITE DATA INTO THE APRS SYSTEM.

FORGET I EVER POSTED IT ON THE APRSSPEC LIST.

THIS IS NOT AN IGATE SPEC PROPOSAL,
IT IS NOT A SUGGESTION FOR AN ADDITION TO THE APRSSPEC.

If AUTHORS want to work towards helping with this project, I put the
requirement out in the public domain. If anyone wants to contribute,
please do. If all you want to do is quibble about proceess, leave me
alone. I have too much else to worry about right now..

de WB4APR, Bob (NOT acting in any way as the APRSWG).

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38. [aprsspec] Truce for 1 month

From: Gerry Creager N5JXS <gerry@cs.tamu.edu>
Date: Sun, 05 Aug 2001 12:48:35 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28138-2001.08.05-13.09.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm suggesting we fall back, and give Bob a break on this for the next
month.

I've been where he is now in the delivery schedule for Flight. I
suggest he doesn't need any extraneous distractions, discussions, etc
until his bird is on orbit.

I think we all have enough food for thought to work from, and I'd ask
that we table the discussion until 15 SEP 2001, to let Bob get past
delivery, launch, and well into on-orbit checkout.

Bob, good luck with the flight. We're rooting for you.

73, gerry n5jxs
--
Gerry Creager -- gerry@cs.tamu.edu
Network Engineering
Academy for Advanced Telecommunications and Learning Technologies
Texas A&M University   979.458.4020 (Phone) -- 979.847.8578 (Fax)

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39. [aprsspec] SGate/IGate Re-focus :o)

From: Ev Tupis <w2ev@rochester.rr.com>
Date: Sun, 05 Aug 2001 14:14:48 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28144-2001.08.05-13.39.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

/reaction to all-caps reply/ I simply restated what I heard people
saying, Bob. No attack was intended -- though your frustration was
difficult to overlook :o). Interestingly, your response forced further
research on my part, which is a good read for anyone interested.

Bob is *absoultly* correct in his message. I had to go back to the
original posting and re-read it carefully to understand that, though.

His proposal has *nothing* to do with the APRS(tm) Protocol
Specification.

By definition, the APRS(tm) Protocol Specification deals only with RF
issues.

By definition, the SGate function (if I can coin a phrase) that Bob had
floated takes place *after* the frame has been received by SGate/IGate
station, and *before* the frame is passed through it's IGate port...with
the Internet as its destination. No RF is involved. Bob is not
proposing that a new "digipeater alias" be established that RF stations
would insert into their transmit frame. All of the processing that is
proposed takes place after the frame is no longer RF in nature.
Therefore, it is not an APRS(tm) Working Group issue (by it's own
statement of purpose).

This is not unlike the development that Steve undertook in establishing
an Internet Protocol. Bob was simply posting it for public scrutiny
(not approval) so that wrinkles could be worked out of it (and at least
one has, by the way).

By the way...there are those that would see this differently:
"> THIS IS NOT AN IGATE SPEC PROPOSAL,". Yet, that doesn't change
anything as there is no sanctioning body established to regulate that
either.

Have at it, Bob and crew. This is an interesting thread (when kept on
topic <smile>). Please keep the thread on this list, though. I'm here
to learn from reading the mail.

I can hardly wait to start flooding your new satellite with 24/7/365
beacons with high power and a tracking antenna. <you KNOW that i'm just
kidding, don't you?> :o) Best wishes in your new endeavor.

Ev, W2EV

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40. [aprsspec] Re: Truce for 1 month

From: James Jefferson <jjeffers@deskmedia.com>
Date: Sun, 05 Aug 2001 13:29:11 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-28148-2001.08.05-13.50.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>I think we all have enough food for thought to work from, and I'd ask
>that we table the discussion until 15 SEP 2001, to let Bob get past
>delivery, launch, and well into on-orbit checkout.

We can't really do that .... Bob was bringing up his proposal because he
needs it right away when the bird gets up.

-James Jefferson KB0THN

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41. [aprsspec] Re: Truce for 1 month

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 16:37:01 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28161-2001.08.05-15.57.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

James Jefferson wrote:
>
> >I think we all have enough food for thought to work from, and I'd ask
> >that we table the discussion until 15 SEP 2001, to let Bob get past
> >delivery, launch, and well into on-orbit checkout.
>
> We can't really do that .... Bob was bringing up his proposal because he
> needs it right away when the bird gets up.

Yes, and the discussion had nothing to do with the specific's of Bob's proposal,
just the mechanism that the WG has in place (or not) to allow additions to the
protocol. There is no reason this cannot be done in parrall.

-Jeff

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42. [aprsspec] Re: SGate/IGate Re-focus :o)

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 16:54:11 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28164-2001.08.05-16.15.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev:

(Bob, skip to the part that says "-- A possible solution --")

Ev Tupis wrote:

> By definition, the APRS(tm) Protocol Specification deals only with RF
> issues.

The charter doc does say this in certain places, it also doesn't say this
in certain places. You might want to review it again, since you were in fact
that one that got me looking at it, and in fact pointed out some glaring holes.

Also, SSID's are a AX.25 protocol issue. By definition, AX.25 is a over the air
protocol. They might be applied different, but this does make the whole issue
muddy and is a justification for bringing these hard questions up.

In any case, my concern, one of your claimed concerns, and also Allen's had
less to do with the semantics here of the document and more to do with just
what is morally right. People have had amendments on the table for some time. The
fact that I brought this up is not to impede or imply in any way Bob's
wasn't needed, just that other people deserve to know what is going on with
their hard work.

I'm seeing alot of people using parts of the WG charter to declare
moral victory here. Problem with that is, what about the rest of the charter,
as you yourself pointed out. Why should we use parts of it as defenses for out
actions while ignoring other parts altogether? It either is, or it isn't. Why
is this such a hard concept for some to grasp?

Nobody gets it, or they would rather call names, but it really is a black and
white issue. People are more concerned about being right then fixing the
problem. The WG, in its current state of limbo, is a impediment to progress.
How many new additions to the over the air protocol had we had in the time since
May of 1999 vs the same time period before May of 1999? Before others (not you Ev)
are going to start calling names, answer that simple question.

And Ev, do you think the APRS over the air spec, in its current shape, answers all
you needs? Answer this question please.

The fact that Bob is the anchor member of the WG (2 votes) is the reason I brought
this up, as it best showed the inequities of the process. We CANNOT address, or use,
one part of the charter as a defense to our actions while completely ignoring other
parts of it. To be taken serious, it HAS TO BE a black and white issue.

-- A possible solution --

Now, we discussed off line ways to solve this. I really don't think we should simply
drop this because it hurts our fingers to type it. You know and I know it will keep
coming up again. I think we agreed that the present status of the WG is one of three
things:

The WG still exists, but is inactive
The WG has been disbanded
Or nobody knows.

The end result of all this is a state of limbo, which quite frankly is WORSE then what
we had before the WG existed.

So, how do we solve this? We know in any scenario, Bob has to be a central part of the

process. But we can't let the process get caught up in the muck of indecision that it is now. This only hurts progress.

As I suggested to you in private e-mail, one solution would be to recognize Bob as a benevolent dictator of APRS, aka Linux Tovalds. This is a *good* term, and does not imply complete control. It just implies, per the Linux model, a guiding hand in the progress of the system.

Specifically, what I suggested to you had two OR trigger points. If something is to be added to the protocol stack is requires one of two things:

1. Bob thinks it is a good thing to add
OR
2. Someone else has run it through the peer review session and gotten a GUI/end user application to support it.

So, in other words, you either need to convince Bob of the worth of the addition, or get community support of the addition. In the case, the community really does mean just that, it would be open to membership of all that were interested and would contribute.

Now, to manage this process, as I mentioned also to you, you could use such open source management tools as source forge. See http://www.sourceforge.com The nice thing about this process is that it does allow us that only have a occasional 5 or 10 hour a week block to devote to this to actively contribute useful stuff. Gone are the days (or it should be) that APRS is the exclusive domain of those that can devote 1000's of hours to writing GUI applications, those of us that can contribute less, but still valuable things, should also be allowed to participate. Most of the real world recognizes this, yet I fully agree we need a champion.

A couple people on the SIG have already spoken up thinking the source forge idea for the APRSSPEC is a good idea, in past postings I have made. I won't name their names due to this firefight, but I'd like those that have taken the time to go this far in the message to say if they feel it is a good idea, or a bad idea, in the context of moving things forward. Please, no private E-mail saying good idea, it is going to take some grassroots effort to make this happen.

-- Bob -- (and also see above)

Bob, if you think this is a good idea, I think all you really need is some grassroots support. As someone pointed out to me in private E-mail (the legal definitions of the termage used in the WG charter), this language only applies to corporations. Since the WG never incorporated, there is nothing stopping you from doing this, although I think the principles of the WG should be a part of any new charter, or simply remain the same. Maybe it is as simply as just changing the comment process.

Anyways, lets here what you think, and move forward. In the affirmative, I'll research the sourceforge docs more and help you set it up (or there are others here that can help if you would rather me stay out of the process..... I understand).

I just hate limbo.

73

Jeff

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43. [aprsspec] Re: Truce for 1 month

From: Gerry Creager N5JXS <gerry@cs.tamu.edu>
Date: Sun, 05 Aug 2001 16:13:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28168-2001.08.05-16.35.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

It seems unlikely that we're going to definitively resolve anything in the remaining time. So, let's do this launch like Bob suggests and then continue in a less time-constrained fashion to achieve concensus.

gerry
--
James Jefferson wrote:
>
> >I think we all have enough food for thought to work from, and I'd ask
> >that we table the discussion until 15 SEP 2001, to let Bob get past
> >delivery, launch, and well into on-orbit checkout.

>
> We can't really do that .... Bob was bringing up his proposal because he
> needs it right away when the bird gets up.
--
Gerry Creager -- gerry@cs.tamu.edu
Network Engineering
Academy for Advanced Telecommunications and Learning Technologies
Texas A&M University   979.458.4020 (Phone) -- 979.847.8578 (Fax)

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44. [aprsspec] [Steve Dimse -aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 17:21:14 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28169-2001.08.05-16.41.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Mr. Dimse:

Steve Dimse wrote:

> The APRS Internet System is not documented or managed by the APRS WG.
> Should it be? Yes, but it is not because there is no one to do the grunt
> work of writing the spec. Jeff tried to make that TAPR and the APRS WG's
> fault, because he began the process but no one stepped forward to help
> him.

Then specifically document your claims, otherwise apologize for your
continued dishonesty and personal attacks towards me.

> Then he calls me arrogant because I tell the truth, that there must
> be a single person willing to lead the effort, and there presently is no
> person to be the Ian of the APRS IS spec.

I call you arrogant because you were acting this way. Hey, even Bob disageed
with your statement above, yet you keep making it a "Jeff" issue. Again,
and parroting Bob's words, the APRSINET spec does not exist/is a mess. The APRSSPEC
DID exist pre Ian and this is what Ian worked off of. This is a completely different
animal and the APRSINET SPEC has to be approached in a cooperative way, at least
until all the spec data is gather from all the papers, source codes and random postings
you have made over the years. Bob did a very good job documenting the APRS
over the air spec, you did not. No cut on you, but if you don't believe me, take
a look at some of his pre WG APRSDOS releases. Just stating a fact, and this fact
makes a difference how we approach the task.

But that is not in any way to lessen the technical writing and verification efforts
of Ian, but we are still a long way from a technical writing exercise. My source forge
suggestion may be a even better fit for the APRSINET spec.

> Jeff would have you believe
> that he is the guy that can lead a project full of open source
> documenters, but if that were the case, it would be happening now, and
> Jeff would have nothing to complain about, or at least he'd be too busy
> to do so.

No, not all all. I simply stated it was discouraging that the author of
APRSSERVE, when repeatedly asked to comment on a rough draft outline,
refused to do so. This person was you. That is all. You have no obligation
to do this, but it was just discouraging. You are a different person then
Bob. And that is not to say I won't start back up, but in a volunteer group,
it is wise to give some positive reenforcement occasionally.

In any case, read what I say, not what you want to hear.

> We all have many different roles, everything Bob says doesn't
> involve the APRS WG, everything I say doesn't involve my role as a board
> member of TAPR.

Ahhh.... the Clinton defense. Well, to some degree you are right, but it
just seemed a good time to bring this issue to the forefront when the anchor
member of the WG was proposing additions to the spec when others additions have
been tabled for more then a year. Don't you see the irony in this, even if it was
not intentional?

The thing I really don't understand, is in private e-mail to me you have repeatedly
shared your views that the APRS-WG is dead/canatonic and will not move forward. Yet
here you are time and time again publicly excusing the inaction's. That is fine,
but I am more interested in a solution, then a excuse. Lets stop throw darts at each
other and talk progress. And who knows, maybe one of those 1%'ers might make a difference.

-Jeff

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45. [aprsspec] Re: Truce for 1 month

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 17:31:02 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28172-2001.08.05-16.51.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Gerry:

I think the only one standing in your way is yourself. Resolve the technical
issues. But DON'T connect the ethical and technical issues and say progress
cannot happen. And by the same token, don't glibly dismiss the ethical issues.

I think it is time someone stood up to the bullies, and resolve this issue. It
is too bad many can only do it in private e-mail, but I do commend the few that
have been able to do it in public.

The APRS-WG is broke. It needs to be fixed, or it needs to declare victory, disband
and allow another mechanism to come into place. There are no gray areas here. It is
a black and white issue. You know this.

Then if we do nothing, it is only our own fault.

-Jeff

Gerry Creager N5JXS wrote:
>
> It seems unlikely that we're going to definitively resolve anything in
> the remaining time. So, let's do this launch like Bob suggests and then
> continue in a less time-constrained fashion to achieve concensus.
>
> gerry

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46. [aprsspec] Re: Truce for 1 month

From: "Jerome M. Kutche" <n9lya@blueriver.net>
Date: Sun, 5 Aug 2001 16:37:12 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28175-2001.08.05-16.59.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

He basically said... He no longer wants input from aprspsec group as they
have just lost control of themselves.. And he is sorry he even posted to
this group.

Personall I don't blame him...

You ask a question and get nothing back but Flames/...
----- Original Message -----
From: "James Jefferson" <jjeffers@deskmedia.com>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Sent: Sunday, August 05, 2001 1:29 PM
Subject: [aprsspec] Re: Truce for 1 month

>
> >I think we all have enough food for thought to work from, and I'd ask
> >that we table the discussion until 15 SEP 2001, to let Bob get past

> >delivery, launch, and well into on-orbit checkout.
>
> We can't really do that .... Bob was bringing up his proposal because he
> needs it right away when the bird gets up.
>
> -James Jefferson KB0THN
>
> ---
> You are currently subscribed to aprsspec as: n9lya@blueriver.net
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47. [aprsspec] Re: [Steve Dimse -aprsspec] Re: SATGATE Specification (Draft)

From: Steve Dimse <k4hg@tapr.org>
Date: Sun, 5 Aug 2001 17:43:09 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28178-2001.08.05-17.05.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/5/01 5:21 PM Jeff King (jeff@aerodata.net) wrote:

>> The APRS Internet System is not documented or managed by the APRS WG.
>> Should it be? Yes, but it is not because there is no one to do the grunt
>> work of writing the spec. Jeff tried to make that TAPR and the APRS WG's
>> fault, because he began the process but no one stepped forward to help
>> him.
>
>Then specifically document your claims, otherwise apologize for your
>continued dishonesty and personal attacks towards me.
>
Jeff, there has been no dishonsty on my part, nor do I think on your
part. The first personal attack in this thread came from you. Anyone on
this list has gotten all the posts, I see no need to quote the specific
sections where you accuse TAPR, Bob, the APRS WG, and myself of failing
to complete the task you barely started.

I also see no need to continue trying to tit-for-tat you. I leave it to
all on this list to decide which of us to place their trust behind.

>And who knows, maybe one of those 1%'ers might
>make a difference.
>
I guess we just have a difference of opinion there. Absolutely there are
1%ers out there that will make a difference, I was one once, so were the
Sprouls, and all the rest, and we all made differences. Where we differ
is I say the difference will not be made while they remain 1%ers. Bob
isn't a 1%er, nor are the Sprouls, Frank, Byon, Brent, Mike, Rob, myself,
or any of the others that created the APRS of today. Some people, for
whatever reason, step forward and make an individual effort that changes
things.

Maybe your highest aspiration is to be a 1%er, but I aim higher. Perhaps
that's why I achieve more.

Steve K4HG

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48. [aprsspec] Re: SGate/IGate Re-focus :o)

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 5 Aug 2001 17:45:39 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28179-2001.08.05-17.07.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 5 Aug 2001, Jeff King wrote:

> coming up again. I think we agreed that the present status of the WG
> is one of three things:

>
> The WG still exists, but is inactive
> The WG has been disbanded
> Or nobody knows.

Jeff,
How many times do we have to go through this. THe above is absolutely
wrong and missleading to everyone. And who are the "we" that "agrees" to
the above?   Let me say it over and over again.

The WG exists. The RF Spec version 1.0 is complete. We are now ready to
review and discuss a draft specification for the Internet portion of APRS.
We need someone to document the IGate SPecification so that there is
something to review.

We need someone with the time, experience, and knowledge to draft the spec
for review. In the volunteer world of amateur radio, harping about others
never accomplishes anything. Until someone steps forward with the time,
experince, knowledge and desire to draft the spec, we have nothing to
review and "approve".

SPeaking for my self as a member of the WG, I will not be favorable to any
significant changes to the APRS spec until I see the Internet side of
things doucmented so we have a clear idea of where we are starting from.
In case you have not noticed, I would say that the INTERNET side of APRS
has continued and will continue to be the LARGER piece of the APRS pie.

RIght now there is nothing on paper to review. No one knows how the
Internet side of APRS works except for the pieces of code in about 10
authors software. And we have no guarantte that any of it works
together.

I say again, until we document what we have, I am (as you say) opposed to
getting all wrapped around the axle with changes to something we cannot
see. When the WG was first formed, the 1st thing on the agenda was to
document the RF spec. The 2nd thing was the IGate spec. We are still on
that schedule.

de WB4APR, Bob

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49. [aprsspec] Re: [Steve Dimse -aprsspec] Re: SATGATE Specification (Draft)

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 18:00:39 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28180-2001.08.05-17.21.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse wrote:

> I also see no need to continue trying to tit-for-tat you. I leave it to
> all on this list to decide which of us to place their trust behind.

But that is exactly the point I was mentioning. You are so concerned about
being right you are loosing focus of the fact the APRS-WG is broken and have
carefully avoiding in any of these postings talking about it. Hey, I already
know I am blacklisted in some of the groups here, that goes without saying.
So I am more then happy to fall on my sword if we can get some progress in something
that does make a difference to me.

I don't want tit-for-dat, just progress. Address your thoughts on this.

> >And who knows, maybe one of those 1%'ers might
> >make a difference.
> >
> I guess we just have a difference of opinion there. Absolutely there are
> 1%ers out there that will make a difference, I was one once, so were the
> Sprouls, and all the rest, and we all made differences.

Yes you where. I was a "1%'er" in the TAPR SS process once, and then went far
beyond that becoming very actively involved in the STA testing. Yet what

we have in common here is that we were both involved at the beginning of
the process, aprs in your case, SS in mine. By 1%'er, I am referring to
someone that enters a process that is more mature.

> Where we differ
> is I say the difference will not be made while they remain 1%ers. Bob
> isn't a 1%er, nor are the Sprouls, Frank, Byon, Brent, Mike, Rob, myself,
> or any of the others that created the APRS of today. Some people, for
> whatever reason, step forward and make an individual effort that changes
> things.

Right.

> Maybe your highest aspiration is to be a 1%er, but I aim higher. Perhaps
> that's why I achieve more.

Can you explain the above to me? You claim not to be making personal attacks,
and as you know I have been far far more then a 1%'er in certain areas of
APRS and other areas, so I can't see how the above can be yet another dishonest
personal attack. Now, I don't beat my chest as much as you, nor target my activities
to attack the most attention to myself, but I am far far more then a 1%'er
and you know this. I only agreed with you the effort I started on the INET
draft was only 1%, and you know this.

Or don't you have enough personal integrity to address this direct question to
you?

-Jeff

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50. [aprsspec] Enough...

From: "Brad Trogdon" <bftrogdon@msn.com>
Date: Sun, 05 Aug 2001 18:16:28 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28185-2001.08.05-17.38.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Enough is enough. This is not progress or is it an informative SIG any
longer. Some one EMail me when the SIG gets back to business usual and I
will again subscribe. Till then have at it....

This is the last Msg I wish to see for a while......

As you requested and confirmed, you have been unsubscribed from 'aprsspec'.

W4INT

_____
Get your FREE download of MSN Explorer at http://explorer.msn.com/intl.asp

---
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51. [aprsspec] Re: SGate/IGate Re-focus :o)

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 19:00:22 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28192-2001.08.05-18.20.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
>
> On Sun, 5 Aug 2001, Jeff King wrote:
>
> > coming up again. I think we agreed that the present status of the WG
> > is one of three things:
> >
> > The WG still exists, but is inactive
> > The WG has been disbanded

> > Or nobody knows.
>
> Jeff,
> How many times do we have to go through this.

Until it is resolved?

> THe above is absolutely
> wrong and missleading to everyone.

What is wrong? You had three choices:

1. The WG still exists, but is inactive
2. The WG has been disbanded
3. Nobody knows.

> And who are the "we" that "agrees" to the above?

Well.....

  John Ackermann N8UR, a member of the WG, wrote on 8/3/01:

  (with regards to Bob's proposal)

  > I can assure you that the WG is not working on
  > this, or frankly any other, proposal.
  >
  > Whether the WG is still alive or not is a good question.

So, I hope you can excuse my confusion here. As to the other "we's", well they
can step forward if they want, but to be safe here I'll be a advocate of #3.

> The WG exists.

Maybe, yet you don't disagree the process is broken? I noticed you and others have
carefully avoided the WG charter compliance issues that Ev and Allen pointed out.

> The RF Spec version 1.0 is complete. We are now ready to
> review and discuss a draft specification for the Internet portion of APRS.
> We need someone to document the IGate SPecification so that there is
> something to review.

Yes, no doubt there, but where in the charter does it say this is the next
step? I was told time and time again on this list that the internet spec
encapsulates the over the air spec, hence IMHO, it seems there is room for
parrall development here.

> SPeaking for my self as a member of the WG, I will not be favorable to any
> significant changes to the APRS spec until I see the Internet side of
> things doucmented so we have a clear idea of where we are starting from.

But don't you see what you are doing here? There are two distinct issues here,
you keep trying to roll them into one, when they are not.

I've seen no substantive proof that the WG even exists and that the charter is
being complied with. Others pointed questions to this by others have also been
ignored.

> RIght now there is nothing on paper to review. No one knows how the
> Internet side of APRS works except for the pieces of code in about 10
> authors software. And we have no guarantte that any of it works
> together.

Yeap, thanks for agreeing with me that the APRSINET process is a far cry from
where the APRSSPEC process started. As such, it will require a cooperative issue,
it's own WG so to say, as the information first has to be collected together
before a technical writer even sees it.

But that is not the point and has nothing to do with if the present WG is broken.

> I say again, until we document what we have, I am (as you say) opposed to
> getting all wrapped around the axle with changes to something we cannot
> see.

Has a vote been taken on this? Still doesn't dismiss the need to comply with

the charter, but would be good to see there is someone besides yourself willing
to speak on the behalf of the WG. You know, kinda like the group still exists.

> When the WG was first formed, the 1st thing on the agenda was to
> document the RF spec. The 2nd thing was the IGate spec. We are still on
> that schedule.

Did you change the charter? Lets take a look at the charter, and see what it
has to say about your claims above, in particular the work plan and assignments.
One can find the charter at:
  ftp://ftp.tapr.org/aprssig/aprsspec/announcements/APRSWG_charter.pdf

APRS-WG Charter said:
--
Page 2:
4. The Group will formalize the APRS on-air Protocol Specification and publish a
definitive APRS protocol document. Present plans are to make the specification
in book and diskette form, and possibly to provide it via electronic distribution.
5. A process will be put in place to define how changes to the protocol specification
are made, and that process will permit input, review, and comment by the
Amateur Radio public.
6. The Group will put a voluntary APRS certification process in place, to be
managed by Bob Bruninga with Group oversight. The process will include a
publicly available validation suite.
--

Lets take a look at this point by point:

4: Completed
5: What is this process?
6. Not complete(?)

Page 2:
The APRS Protocol Specification is the formal definition of the data elements and
message formats used to communicate between APRS devices via wireless or wired (e.g.,
Internet) connections. It does not include user interface or other elements that do not
affect the content or format of these interface components.
The Protocol Committee, which presently consists of all Members, is responsible for the
APRS Protocol Specification. It manages the process for publishing and updating the
Specification, and for receiving public comment on proposed changes.
--

Reading this, this implies that both the over the air, and the internet side are part
of the APRS Protocol Specification. Further, it seems to imply that the protocol
committee is responsible for both aspects, over the air and internet. There is not
a different process for each aspect. One could assume that both aspects would be
handled in the same manner. I', *not* trying to suggest others do the work, I'm
just trying to give you further proof the WG is broken and needs to be fixed, one
way or the other.

Page 2:
The Protocol Specification will define □Mandatory□ and □Optional□ elements, and will
take into account the requirements for various types of APRS-compatible products.

I don't see this anywhere in the spec, even though I and others suggested this. Again,
not complaining, but this was a key part of the process, and not completing it because
the INET is not done, implies the charter is "broken".

Page 3:
Committee Operations and Community Input
Input from the APRS user community, other APRS developers, and the Amateur Radio
community at large is a key component of the protocol development process. To ensure
this input, the following process will be used to amend or revise the Protocol
Specification:
1. Proposed revisions to the Specification may be submitted by any person, and will
be published at the Group web site.

Many things were submitted, they were deferred because the protocol committee was busy

working on the draft over the air protocol. Yet where on the web page are proposed changes published on the web site?

Listen Bob, most of us have known the above charter was not being complied with for some time, so it is not my purpose to crucify it. My purpose is to show you the over the air spec is incomplete, and in any case, should not be left uncompleted just because a polished draft has not been submitted on the INET protocol. It really is two different issues, and in any case, the over the air spec needs to be brought into compliance with the charter, if the WG wants to claim it still exists.

With the above in mind, how about commenting on my suggesting of moving the WG efforts over to Source Forge. In case you lost it in the firefight, here is the URL again:

http://www.sourceforge.org

I suggest to everyone they think less about being right, and more about fixing a process that has gone morbid. This could mean fixing the existing group, or restructiurng it in some way. The end result is what matters, not how we get there.

Sincerely,

Jeff

> de WB4APR, Bob
>
> ---
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> To unsubscribe send a blank email to leave-aprsspec-22299N@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

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52. [aprsspec] Re: [Steve Dimse] Solutions, APRS DCC forum, was re: Satgate

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 19:09:45 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28193-2001.08.05-18.30.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse wrote:
>
> On 8/5/01 6:00 PM Jeff King (jeff@aerodata.net) wrote:
>
> >You claim not to be making personal attacks,
>
> Wrong, I never claimed not be making personal attacks, only that you made
> the first one.

Don't recall drawing first blood, but fair enough. Maybe we should both pull back a little. Any thoughts on ways to fix the WG? You certainly expressed alot of derogatory opinions about the WG in personal e-mail to me. Or if you have no constructive thoughts of your own, how about tearing some holes in the possibly solutions I suggested to move forward?

> I consider you nothing but a drag on APRS, and I will do my best to make
> sure everyone sees that!

Hey, I got a great idea. I notice you have gotten more time in the DCC APRS forum on Friday, maybe in your role as the moderator of that forum, you could have a session highlighting all evil things I have done to Steve Dimse and others to drag down APRS. Another world class thought, Steve!

-Jeff

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53. [aprsspec] Re: Enough...

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 19:09:51 -0400

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28194-2001.08.05-18.30.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Brad Trogdon wrote:
>
> Enough is enough. This is not progress or is it an informative SIG any
> longer. Some one EMail me when the SIG gets back to business usual and I
> will again subscribe.

What is the "business as usual" if this SIG? Talking about protocol issues
that will go into a blackhole?

FYI, a process was put in place, and this SIG was
created to assist in that process. If the process is broken, it seems in
IMHO, it either needs to be stated it is broken, or repaired.

I'm serious, what does everyone think the purpose of this SIG is?

-Jeff

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54. [aprsspec] Re: Enough...

From: Gerry Creager N5JXS <gerry@cs.tamu.edu>
Date: Sun, 05 Aug 2001 18:58:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28208-2001.08.05-19.20.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Non-rancourous discussion of technical merits leading to
concensus-building related to the particular issues at hand.

And that's been hard this time.

Good questions have been raised by virtually every significantly active
party to this recent thread, but the noise level has also been
significant, and very distracting.

gerry
--
Jeff King wrote:
>
> Brad Trogdon wrote:
> >
> > Enough is enough. This is not progress or is it an informative SIG any
> > longer. Some one EMail me when the SIG gets back to business usual and I
> > will again subscribe.
>
> What is the "business as usual" if this SIG? Talking about protocol issues
> that will go into a blackhole?
>
> FYI, a process was put in place, and this SIG was
> created to assist in that process. If the process is broken, it seems in
> IMHO, it either needs to be stated it is broken, or repaired.
>
> I'm serious, what does everyone think the purpose of this SIG is?
--
Gerry Creager -- gerry@cs.tamu.edu
Network Engineering
Academy for Advanced Telecommunications and Learning Technologies
Texas A&M University   979.458.4020 (Phone) -- 979.847.8578 (Fax)

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55. [aprsspec] Re: Enough...

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 20:18:33 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28218-2001.08.05-19.38.51--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Gerry Creager N5JXS wrote:
>
> Non-rancourous discussion of technical merits leading to
> concensus-building related to the particular issues at hand.
>
> And that's been hard this time.

Understood, but don't you agree there has to be a formal process in place,
and if there is a formal process in place, it be followed? At best, the
process is fuzzy and even those on the inside cannot agree with each other.

> Good questions have been raised by virtually every significantly active
> party to this recent thread, but the noise level has also been
> significant, and very distracting.

Understood, and I've tried to change the thread topics in my responses, as
you earlier noticed, to try and minimize the distraction, which in any
case is intense as you noted.

This really is a case of the emperor has no clothes, and in the popular fable,
the one (or in this case, multiple parties) that noticed the emperor had no clothes
where not well received. One would rather believe something is, that really isn't because
of the fear of public condement.

I would suggest to you and others involved, that you focus your technical discussions
on the task at hand, and put blinders on the other conversations. I would however
suggest you insist the the topics be changed so they can be filtered out.

I've not yet seen you state that the ethics/WG issue at hand is out of line, just
a distraction.

Fair enough?

-Jeff

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56. [aprsspec] I'll start work

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sun, 5 Aug 2001 19:41:44 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28222-2001.08.05-20.04.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff (and APRS Spec),

Over the next week I'll flush out a few areas of your outline. I
appreciated what you did when you put together the outline and related
reading, and I'm willing to work a little towards combining that into
one document.

Anyone care to join me?

-James Jefferson KB0THN

>
>
> Gerry Creager N5JXS wrote:
> >
> > Non-rancourous discussion of technical merits leading to
> > concensus-building related to the particular issues at hand.
> >
> > And that's been hard this time.
>
> Understood, but don't you agree there has to be a formal process in
place,
> and if there is a formal process in place, it be followed? At best,
the
> process is fuzzy and even those on the inside cannot agree with each
other.
>
>

> > Good questions have been raised by virtually every significantly
active
> > party to this recent thread, but the noise level has also been
> > significant, and very distracting.
>
> Understood, and I've tried to change the thread topics in my
responses, as
> you earlier noticed, to try and minimize the distraction, which in any
> case is intense as you noted.
>
> This really is a case of the emperor has no clothes, and in the
popular fable,
> the one (or in this case, multiple parties) that noticed the emperor
had no clothes
> where not well received. One would rather believe something is, that
really isn't because
> of the fear of public condement.
>
> I would suggest to you and others involved, that you focus your
technical discussions
> on the task at hand, and put blinders on the other conversations. I
would however
> suggest you insist the the topics be changed so they can be filtered
out.
>
> I've not yet seen you state that the ethics/WG issue at hand is out of
line, just
> a distraction.
>
> Fair enough?
>
> -Jeff
>
> ---
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wa1lou@tapr.org
>
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

57. [aprsspec] Re: SGate/IGate Re-focus :o)

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 5 Aug 2001 20:42:42 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28223-2001.08.05-20.05.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 5 Aug 2001, Jeff King wrote:

> Maybe, yet you don't disagree the process is broken?

Nope. As soon as someone prepares a draft IGATE SPEC for the current
system on which we can all review, comment, propose corrections, there is
noting that is broken. Until we have something to work on, then we have
nothing to "process". Have you ever tried to PKUNZIP and empty file?
PKUNZIP responds with a very well worded. "nothing to do"...

> others have carefully avoided the WG charter compliance issues that Ev
> and Allen pointed out.

The only thing I saw pointed out was that I failed to follow the process
for proposing changes to the SPEC. BUT THAT STATEMENT HAS SINCE BEEN
RETRACTED, SINCE THE ORIGINATOR OF THAT ISSUE NOW HAS PUBLICALLY
STATED THAT HE WAS REACTING TO YOUR MISSINFORMATION AND NOT TO MY
ORIGINAL POST. ***I NEVER PROPOSED ANY CHANGES TO THE SPEC*** LET ME
SAY IT AGAIN:

QUOTE: I MADE NO PROPOSAL TO CHANGE, MODIFY, OR ADD TO THE APRS SPEC nor
the IGATE SPEC. I ONLY ASKED FOR SOME CONISDERATION OF OTHERS TO HOW WE

CAN INJECT PCSAT DOWNLINKS INTO THE ***** EXISTING******* APRS INTENET
SYSTEM SO THAT WE COULD SEE (1) WHAT SATGATE INJECTED THEM, and (2) WHAT
SATELLITE CHANNEL THEY WERE HEARD ON.

Now, either contribute to that discussion or stop wasting my time.

> I've seen no substantive proof that the WG even exists and that the
> charter is being complied with. Others pointed questions to this by
> others have also been ignored.

SO what proof would you like. How's this for an in-process report from
a member of the APRS-WG and you can quote me:

QUOTE:
The APRSWG has openly solicited ad-nausium for someone with the time,
knowledge, interest and stamina to put down on paper how the existing
APRS-Internet system works. The members of the APRS-SPEC mailing list
group, consisting of many earnest and energectic volunteers have thus far
produced nothing. I hold no one at fault and am not complaining.
Everyone is busy. WHen someone has the time and patience, it will get
done. Until then, griping about others lack of time to contribute
accomplishes nothing.

The APRS-WG has reviewed the deliberated over the 1032 Emails exchanged by
said volunteers and has found nothing of any value regarding the
documentation of the APRS-INTERNET specification on which to begin the
formal APRS-WG review process. UNQUOTE. Bob Bruninga.

> Bob said: "I say again, until we document what we have, I am (as you
> > say) opposed to getting all wrapped around the axle with changes to
> > something we cannot see."

> Has a vote been taken on this?

No vote needed. READ IT AGAIN. THAT IS MY OPINION. Note particularly the
words "I am". I dont know why I need to ask for a vote to express my
personal opinion.

> With the above in mind, how about commenting on my suggesting of moving
> the WG efforts over to Source Forge. In case you lost it in the
> firefight, here is the URL again: http://www.sourceforge.org

I think that is a GREAT IDEA! This APRSSPEC sig is for substantive
discussion of APRS specification technical details, not forever harranging
everyone on what a few vociferous individuals think everyone else should
be doing with their time. Please go.

When you have put together a draft IGATE SPEC for formal review and
comment, please bring it back and we will be happy to discuss the
technical details and process it via the APRS-WG process...

de WB4APR, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

58. [aprsspec] Re: Enough...

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 5 Aug 2001 20:46:57 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28225-2001.08.05-20.09.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 5 Aug 2001, Jeff King wrote:

> I'm serious, what does everyone think the purpose of this SIG is?

That's easy:
To discuss technical details of the APRS specification and (currently my
focus is) to hopefully document the APRS-INTERNET system. What it is NOT
FOR is constant bitching and moaning by a few on how they want someone
else to do all the work...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

59. [aprsspec] Re: I'll start work

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 5 Aug 2001 20:55:01 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28226-2001.08.05-20.17.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 5 Aug 2001, James Jefferson wrote:

> Over the next week I'll flush out a few areas of your outline. I
> appreciated what you did when you put together the outline and related
> reading, and I'm willing to work a little towards combining that into
> one document.

Great! I would certainly contribute, but as you konw, I am focused on
maintaining APRSdos and so I have had no tools with which to integrate the
Internet process into APRSdos. THus, I have little to contribute, or I
would have done it already. SO I welcome your offer! I for one sure
would like to see how it works on paper....

Go for it!

de WB4APR, Bob

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60. [aprsspec] Re: APRS-WG, sourceforge?

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 21:21:21 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28231-2001.08.05-20.41.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
>
> On Sun, 5 Aug 2001, Jeff King wrote:
>
> > Maybe, yet you don't disagree the process is broken?
>
> Nope. As soon as someone prepares a draft IGATE SPEC for the current
> system on which we can all review, comment, propose corrections, there is
> noting that is broken.

I don't know why you keep confusing what I am saying with the IGATE spec,
so I changed the topic thread.

I was talking about the APRS-WG, not the yet to be drafted internet spec.
Two different and distinct issues.

Please, go back and read what I said keeping that in light. I don't see
a point in replying to the majority of your post with you having this
misunderstanding.

Again, I was talking about the APRS-WG.

> > With the above in mind, how about commenting on my suggesting of moving
> > the WG efforts over to Source Forge. In case you lost it in the
> > firefight, here is the URL again: http://www.sourceforge.org
>
> I think that is a GREAT IDEA! This APRSSPEC sig is for substantive
> discussion of APRS specification technical details, not forever harranging
> everyone on what a few vociferous individuals think everyone else should
> be doing with their time. Please go.

OK, now be clear in what I said and what you are responding to. I said,
how about moving the *APRS-WG* efforts over to a source forge. We would
take the existing copyright APRS-SPEC document, and break it into pieces
on sourceforge. Then interested parties could post additions to the
protocol. There would no longer be a "WG member" as there is now, and
that title would have no significance.

> When you have put together a draft IGATE SPEC for formal review

Again, two different issues. I was referring to the APRS-WG, and have
been throughout this discussion. It is you and Steve who keep bringing
this red herring up, not that I don't think it it needed, or won't
help myself.

> comment, please bring it back and we will be happy to discuss the
> technical details and process it via the APRS-WG process...

Bob, it is not clear to me there is a APRS-WG process, or at least the
published process is not being complied with as I pointed out in detail,
which you have not responded to.

None-the-less, we need to walk before we run. Many of us want a open
process for protocol development. Possibly the INET protocol might be
a good experiment to start with before we try to repair/redo the APRS-WG.
But you have to understand it is a participatory process.

I see someone else has now stepped forward, lets see what we can do here.

Regards,

Jeff

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61. [aprsspec] Re: I'll start work (APRSINET spec)

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 21:29:47 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-28234-2001.08.05-20.50.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi James:

I changed the title of your post as too many people are confusing the
the over the air spec with the INET spec.

James Jefferson wrote:
>
> Jeff (and APRS Spec),
>
> Over the next week I'll flush out a few areas of your outline. I
> appreciated what you did when you put together the outline and related
> reading, and I'm willing to work a little towards combining that into
> one document.

Thanks James. Bill Diaz went over it with me on the phone, he basically
suggested removing all the "future idea" comments.

Now, what did you think of my source forge idea of hosting it? If your
not against it, I'll start researching this a little more to see if
it makes sense and how to set up a APRSINETSPEC project on it, if
no-one disagrees.

I placed everything I found on the INET spec on the TAPR site. You can
find it at: ftp://ftp.tapr.org//aprssig/aprsspec/aprstcp

Thanks James

Jeff

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62. [aprsspec] Re: [Steve Dimse] Solutions, APRS DCC forum, was re: Satgate

From: Steve Dimse <k4hg@tapr.org>
Date: Sun, 5 Aug 2001 23:12:23 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28247-2001.08.05-22.34.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/5/01 7:09 PM Jeff King (jeff@aerodata.net) wrote:

>
>
>Steve Dimse wrote:
>>
>> On 8/5/01 6:00 PM Jeff King (jeff@aerodata.net) wrote:
>>
>> >You claim not to be making personal attacks,
>>
>> Wrong, I never claimed not be making personal attacks, only that you made
>> the first one.
>
>Don't recall drawing first blood, but fair enough.

You did.

>Maybe we should both pull
>back a little.

And yet you take my private email to you and broadcast it to the entire
SIG. This shows exactly what you are all about, Jeff. You have no desire
to accomplish anything other than creating havoc.

>> I consider you nothing but a drag on APRS, and I will do my best to make
>> sure everyone sees that!
>
>Hey, I got a great idea. I notice you have gotten more time in the DCC APRS
>forum on Friday, maybe in your role as the moderator of that forum, you
>could have a session highlighting all evil things I have done to Steve
>Dimse and
>others to drag down APRS. Another world class thought, Steve!
>
No, Jeff, that forum I devote to highlighting the accomplishments of
those who contribute positively to APRS. If you ever enter that category,
I'd love to give you time, but I'll bet you never get there.

Steve K4HG

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63. [aprsspec] Re: [Steve Dimse] Solutions, APRS DCC forum, was re: Satgate

From: Jeff King <jeff@aerodata.net>
Date: Sun, 05 Aug 2001 23:44:46 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28251-2001.08.05-23.05.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse k4hg@tapr.org wrote:
>
> On 8/5/01 7:09 PM Jeff King (jeff@aerodata.net) wrote:

> >Steve Dimse wrote:
> >>
> >> On 8/5/01 6:00 PM Jeff King (jeff@aerodata.net) wrote:
> >>
> >> >You claim not to be making personal attacks,
> >>
> >> Wrong, I never claimed not be making personal attacks, only that you made
> >> the first one.
> >
> >Don't recall drawing first blood, but fair enough.
>
> You did.

OK, if you say I did then sorry. It certainly is a debatable point. Someone has
got to stop however.

> >Maybe we should both pull
> >back a little.

> And yet you take my private email to you and broadcast it to the entire
> SIG. This shows exactly what you are all about, Jeff. You have no desire
> to accomplish anything other than creating havoc.

I want to talk about that. It was a mistake.... if you look at the post log, you'll see a bunch of e-mails went out at about the same time.... in the case of your e-mail, I thought I had hit reply when I should have hit reply all. I changed it manually to reflect where I thought it should be going. You also didn't say offlist or any mention in your e-mail and the title was the same as on the SIG.

That much being said, that it was a mistake, I am not going to offer a apology to you. While you say my mistake shows what I am about, your personal feelings show what you are all about. That is, using your position and influence in the APRS/TAPR community to wage your personal vendettas. Some may give you a pass because of all your contributions, but I won't. Not acceptable behavior from a leader in the APRS community nor the moderator of a ARRL sponsored conference. I won't buy the Clinton defense.

> >> I consider you nothing but a drag on APRS, and I will do my best to make
> >> sure everyone sees that!

> >Hey, I got a great idea. I notice you have gotten more time in the DCC APRS
> >forum on Friday, maybe in your role as the moderator of that forum, you
> >could have a session highlighting all evil things I have done to Steve
> >Dimse and
> >others to drag down APRS. Another world class thought, Steve!

> No, Jeff, that forum I devote to highlighting the accomplishments of
> those who contribute positively to APRS. If you ever enter that category,
> I'd love to give you time, but I'll bet you never get there.

And this from the moderator of the ARRL/DCC APRS forum and a seated TAPR BOD member. You are a disgrace. When I suggested to John Ackerman, TAPR president, that some of the members of the TAPR BOD needed training in the running and nurturing of a volunteer organization, rest assured you were the poster child I was thinking of.

But don't let it worry you Steve, no matter how hard you try, I am not going to go away. And I'm sure you'll continue to see just what you want to see in a way that most benefits your agenda of the moment. I just hope your behavior is not driving to many other people away.

-Jeff

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64. [aprsspec] Re: I'll start work (APRSINET spec)

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sun, 5 Aug 2001 23:05:20 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28252-2001.08.05-23.27.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jeff King wrote:
> Bill Diaz went over it with me on the phone, he basically
> suggested removing all the "future idea" comments.

Okay, good plan. Let's be sure to keep a list of "future ideas".

> Now, what did you think of my source forge idea of hosting it?

I just looked at SourceForge a little. They have an impressive setup; especially CVS and bugtraq. To qualify for a Sourceforge account the spec needs to be licensed under one of their OSI approved licenses, or recieve SourceForge's approval. After briefly looking through licenses, I think the ARTISTIC or MIT licenses are the best. Other ideas?

I also run a Linux box on a very fast connection (the dual 100 megabit ethernet cards are the limiting factor on bandwidth. See http://www.jarviscomputer.com/jcs/server.php) which we can use, as needed.

On another logistics note: what do people recommend for document
formats? I'm most familiar with HTML, but it might not be the best
markup language to use. Is Framemaker still freely available for Linux?

-Jim Jefferson KB0THN

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65. [aprsspec] Re: [Steve Dimse] Solutions, APRS DCC forum, was re: Satgate

From: Steve Dimse <k4hg@tapr.org>
Date: Mon, 6 Aug 2001 00:19:07 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28254-2001.08.05-23.41.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/5/01 11:44 PM Jeff King (jeff@aerodata.net) wrote:

>> >Maybe we should both pull
>> >back a little.
>
>> And yet you take my private email to you and broadcast it to the entire
>> SIG. This shows exactly what you are all about, Jeff. You have no desire
>> to accomplish anything other than creating havoc.
>
>
>I want to talk about that. It was a mistake.... if you look at the post log,
>you'll see a bunch of e-mails went out at about the same time.... in the case
>of your e-mail, I thought I had hit reply when I should have hit reply all.

No Jeff, it was a lot more than that. My message was adressed only to
you, aprsspec was not in the message header. Reply, or reply all, would
have been only me. You had to specifically add aprsspec, and you did so.
It was a deliberate, premeditated act. You are finally right about one
thing though, it was a mistake. Your lame excuse just magnifies your
error. And you say I act like Clinton!

>> No, Jeff, that forum I devote to highlighting the accomplishments of
>> those who contribute positively to APRS. If you ever enter that category,
>> I'd love to give you time, but I'll bet you never get there.
>
>And this from the moderator of the ARRL/DCC APRS forum and a seated TAPR
>BOD member. You are a disgrace. When I suggested to John Ackerman, TAPR
>president,
>that some of the members of the TAPR BOD needed training in the running
>and nurturing
>of a volunteer organization, rest assured you were the poster child I
>was thinking of.
>
And yet John, who is a paragon of patience, someone whom I admire greatly
for his people skills, sent you a reply you don't mention. What exactly
did he tell you, Jeff? At some point you ought to wonder why so many
highly regarded members of the APRS community are telling you they have
better things to do than deal with you!

Steve K4HG

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66. [aprsspec] Re: [Steve Dimse] Solutions, APRS DCC forum, was re: Satgate

From: Jeff King <jeff@aerodata.net>
Date: Mon, 06 Aug 2001 00:59:29 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28267-2001.08.06-00.19.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse wrote:
>
> On 8/5/01 11:44 PM Jeff King (jeff@aerodata.net) wrote:

> >I want to talk about that. It was a mistake.... if you look at the post log,
> >you'll see a bunch of e-mails went out at about the same time.... in the case

> >of your e-mail, I thought I had hit reply when I should have hit reply all.

> No Jeff, it was a lot more than that. My message was adressed only to
> you, aprsspec was not in the message header.

Here is the message header/title in question:

Subject: Re: [aprsspec] Re: [Steve Dimse -aprsspec] Re: SATGATE Specification (Draft)
Date: Sun, 5 Aug 2001 18:50:52 -0400
From: Steve Dimse <k4hg@tapr.org>
To: "Jeff King" <jeff@aerodata.net>

Sure looks like [aprsspec] is in the header/title to me and you have been CC'ing
both to the list and me direct. Like I said, a mistake.

> Reply, or reply all, would have been only me.

Your correct. That is why I said I thought I had hit reply by mistake, and
not reply all as I intended. I then manually edited it to correct what I thought
was my oversight. Read what I said instead of what you think I said.
It is all there and it is plausable. I really don't care if you believe me
anyways.

> You had to specifically add aprsspec, and you did so.

Yeap, that is what I said I did. Might want to read what I post for once.

> It was a deliberate, premeditated act. You are finally right about one
> thing though, it was a mistake. Your lame excuse just magnifies your
> error. And you say I act like Clinton!

You misunderstand. I said it was a mistake. I didn't offer a excuse or
applogy. Frankly, I can't say with confidence I wouldn't have done exactly
the same thing even if I had been aware it was private. Your actions behind
the scene are a disgrace to the positions you hold, and what you sent me
threating to do your best to slander/libel me to the APRS community would
have been the last straw in any case.

> >> No, Jeff, that forum I devote to highlighting the accomplishments of
> >> those who contribute positively to APRS. If you ever enter that category,
> >> I'd love to give you time, but I'll bet you never get there.

> >And this from the moderator of the ARRL/DCC APRS forum and a seated TAPR
> >BOD member. You are a disgrace. When I suggested to John Ackerman, TAPR
> >president,
> >that some of the members of the TAPR BOD needed training in the running
> >and nurturing
> >of a volunteer organization, rest assured you were the poster child I
> >was thinking of.

> And yet John, who is a paragon of patience, someone whom I admire greatly
> for his people skills, sent you a reply you don't mention.

Oh REALLY?!? And how would you know that John sent me a reply to that message? He
in fact did, but looking at it, I don't see anyone on the CC list. It was a
private message just to me. Are you suggesting here on this SIG that the
president of TAPR is sharing private e-mail?

> What exactly did he tell you, Jeff?

Interesting and quite ironic.

So, your upset that by mistake I reposted your private e-mail to the list,
and now you are asking me to share a private e-mail from John, that by
all appearences was only sent to me, to a public list here? That does seem
kinda ironic, doesn't it Steve?

Tell you what, since appearently it was shared with you, why don't you repost
it here to the list.... I give you my permission to do so. I'm certainly not
ashamed of it, and by the reaction, or lack there of, it most certainly is
not flattering to the organization I directed it at. In fact, I beg you to
post it on the list. If some of the things that you are imply are happening,
they really need to be brought out. While you are at it, copy the TAPR-ORG
list as well. Lets make a big party out of it.

> At some point you ought to wonder why so many
> highly regarded members of the APRS community are telling you they have
> better things to do than deal with you!

Actually, the letter you speak of had little to do with APRS. Are you sure you
got BCC'ed the right one? In any case, feel free to share your thoughts on
why you think the above is so. You seem to be enjoying it and I don't want to
take away from that.

-Jeff

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67. [aprsspec] Re: I'll start work (APRSINET spec)

From: Gerry Creager N5JXS <gerry@cs.tamu.edu>
Date: Mon, 06 Aug 2001 00:26:23 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28269-2001.08.06-00.47.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

James Jefferson wrote:
>
> Jeff King wrote:
> > Bill Diaz went over it with me on the phone, he basically
> > suggested removing all the "future idea" comments.
>
> Okay, good plan. Let's be sure to keep a list of "future ideas".

" To do list" on Source Forge...

> > Now, what did you think of my source forge idea of hosting it?
>
> I just looked at SourceForge a little. They have an impressive setup;
> especially CVS and bugtraq. To qualify for a Sourceforge account the
> spec needs to be licensed under one of their OSI approved licenses, or
> recieve SourceForge's approval. After briefly looking through licenses,
> I think the ARTISTIC or MIT licenses are the best. Other ideas?

I really see no reason why we cannot use the documentation form of GPL
(my mind is blank on the label right now). Otherwise I see no problem
with, in order, MIT or ARTISTIC, either.

> I also run a Linux box on a very fast connection (the dual 100 megabit
> ethernet cards are the limiting factor on bandwidth. See
> http://www.jarviscomputer.com/jcs/server.php) which we can use, as
> needed.
>
> On another logistics note: what do people recommend for document
> formats? I'm most familiar with HTML, but it might not be the best
> markup language to use. Is Framemaker still freely available for Linux?

I'd rather do StarOffice or XML. I could be convinced to do Word as a
concession to the non-linux-heads out there.

gerry

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68. [aprsspec] Re: I'll start work (APRSINET spec)

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 6 Aug 2001 10:49:47 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28373-2001.08.06-13.12.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 6 Aug 2001, Gerry Creager N5JXS wrote:

> I'd rather do StarOffice or XML. I could be convinced to do Word as a
> concession to the non-linux-heads out there.

Not me! There's a lot more out there than just MS Windows and Linux.
Please try to choose something that is fairly universally supported
across many operating systems. I prefer HTML or PDF. There are
tools that can output a variety of formats. I use/like StarOffice
but there may be better choices. The more output formats the better,

so that more people can use the resultant specs.

I think SourceForge is a wonderful idea, both for the soon-to-be-worked-on internet spec and for the ratified-but-needs-a-bit-of-tweaking APRS spec.

I suspect many people on the list don't have a clear idea how open-source development really works. While Xastir doesn't use SourceForge, it _does_ use many of the same tools, and the 1% contributors really can make a difference with this system. I started out as one of the 1% (or less) Xastir guys. I'm probably only at 10 or 15% now, but making a big difference in Xastir. Perhaps four or five people have direct access to the source code. MANY others suggest changes and submit patches for one of the developers to incorporate. It really works well. Before, when we didn't have Xastir sources in CVS, development was quite slow. SourceForge integrates all of the tools needed for open-source development and lets people use them for free.

I see a lot of frustration from all parties on this list that more isn't getting done. We have access to tools now to make the processes easier. I can easily ignore the chaff I've had to wade through, and all sides have had valid points embedded here and there. It does make for a large volume of mail to get through when a smaller subset would have sufficed, but it certainly isn't the fault of any one individual. It takes two to tango (or more it seems for a spec list!).

It's ok to agree to disagree. In the meantime, let's get this stuff onto SourceForge with an open-source license and get to work (BOTH specs).

My vote.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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69. [aprsspec] Re: I'll start work (APRSINET spec)

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 6 Aug 2001 14:33:59 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28385-2001.08.06-13.56.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 6 Aug 2001, Curt Mills, WE7U wrote about the tool for the APRSINET spec development:

> I suspect many people on the list don't have a clear idea how
> open-source development really works. While Xastir doesn't use
> SourceForge, it _does_ use many of the same tools, and the 1%
> contributors really can make a difference with this system....
> Perhaps four or five people have direct access to the source code.
> MANY others suggest changes and submit patches for one of the
> developers to incorporate. It really works well. Before, when we
> didn't have Xastir sources in CVS, development was quite slow.
> SourceForge integrates all of the tools needed for open-source
> development and lets people use them for free.

I am not familiar with these tools, but what I see above sounds more like code development than spec dvelopment (I could be totally wrong). I thought the focus was on a spec, not more tweaks to linux code? Can someone clarify? Thanks
Bob

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70. [aprsspec] Re: I'll start work (APRSINET spec)

From: Stephen Schwarm <sschwarm@emc.com>
Date: Mon, 06 Aug 2001 15:00:26 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28391-2001.08.06-14.22.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can I recommend we use LaTex. Use it to produce pdf for publication.
LaTex is great for producting large documents that go though several
changes. It works well to systems like CVS to maintain histories. It
runs on most everything except MSDos. It is very easy to learn and I'd
be glad to get us started. Distribution of the output as pdf allows for
easy check that it is the correct version using checksums but we all
don't have to have the tools to process pdf directly.

I currently do not do much with the internet APRS. I use mostly the RF
form but I'd like to see a standard done.

Steve, W3EVE

"Curt Mills, WE7U" wrote:
>
> On Mon, 6 Aug 2001, Gerry Creager N5JXS wrote:
>
> > I'd rather do StarOffice or XML. I could be convinced to do Word as a
> > concession to the non-linux-heads out there.
>
> Not me! There's a lot more out there than just MS Windows and Linux.
> Please try to choose something that is fairly universally supported
> across many operating systems. I prefer HTML or PDF. There are

---
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71. [aprsspec] Re: I'll start work (APRSINET spec)

From: Bill Vodall <wa7nwp@yahoo.com>
Date: Mon, 6 Aug 2001 12:20:21 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28401-2001.08.06-14.42.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

--- "Curt Mills, WE7U" <hacker@tc.fluke.com> wrote:
> In the meantime, let's get this stuff
> onto SourceForge with an open-source license and get to work
> (BOTH specs).

Yes, but be sure to keep a non-SourceForge backup of the work
 being done. Free services have been known to disappear...

Bill, WA7NWP

_____
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Make international calls for as low as $.04/minute with Yahoo! Messenger
http://phonecard.yahoo.com/

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72. [aprsspec] Re: I'll start work (APRSINET spec)

From: "Jeff King" <transit_man@hotmail.com>
Date: Mon, 06 Aug 2001 19:31:51 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28406-2001.08.06-14.54.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga <bruninga@usna.edu> wrote:

>I am not familiar with these tools, but what I see above sounds more like
>code development than spec dvelopment (I could be totally wrong). I

>thought the focus was on a spec, not more tweaks to linux code? Can
>someone clarify?

Source forge is OS independent, and can also used for documentation
development. If you think about it, most source code is ascii text
anyways, so ulitimately not much different, at least in the initial
stages, which is exactly where we are at now.

Source Forge also supports other tools as well, including mailing
lists. One does not have to be familar with all the tools to particpate
in some fashion.

And on a more general note...

I think it is important to keep KISS in mind here... and also make
sure that any effort is OS neutral. We need to keep in mind that the
less barriers to entry that are created, the more that can particpate. Tools
need to be available for the main platforms. From what I have
heard so far in this thread, I don't think this is an issue, but I
wanted to say that anyways.

73

Jeff

_____
Get your FREE download of MSN Explorer at http://explorer.msn.com/intl.asp

---
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73. [aprsspec] Re: SATGATE Specification

From: K3for@aol.com
Date: Mon, 06 Aug 2001 16:55:19 EDT
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <k3for@aol.com>
Message-ID: <LYR11589-28425-2001.08.06-16.18.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In all the hoo-haa where I think we finally got Jim to volunteer to start gathering some APRSInet spec info together (BTW, Jim, I'd rather see it posted for info/comments in plain-text or HTML rather than a SourceForge solution, and I'll host it, if you want), I lost track of what we want.

Bob, you're saying that if I'm a satIgate, you want me to pass all received packets to APRServe as something like (e.g. PCSAT 1200baud down):
WB4APR>APR8TK,PCSAT,K3FOR-1,TCPIP:=3909. N/07636. W`000/000/BOB HOME STATION

and my -1 should indicate that receive mode? My intended implementation is to use your APRStk to steer my beam and QSY my D7, and take the rx off the serial data from the TNC and feed it in parallel into standard Igate software (Win, SA). This would seem to accomplish everything except your SSID rx-mode substition. APRServe would see the packet and where it came from, but not *how* it came down from the satellite. APRStk would know that, but it doesn't have a way of talking to the Igate box.

.. but, the *sender* could put it in his text, unless he's an automated APRStk station, too - in which case we know that from his TOCALL, and we know what mode APRStk uses for each bird.

73,
Skip/K3FOR

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74. [aprsspec] Re: I'll start work (APRSINET spec)

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 6 Aug 2001 12:16:11 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28427-2001.08.06-16.23.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 6 Aug 2001, Bob Bruninga wrote:

> I am not familiar with these tools, but what I see above sounds more like
> code development than spec dvelopment (I could be totally wrong). I
> thought the focus was on a spec, not more tweaks to linux code? Can
> someone clarify? Thanks

The two processes are very similar. With Linux/Solaris/*BSD code,
you're updating ASCII text via CVS. Anyone can check out the very
latest code via anonymous CVS seconds after it has been changed.

With a spec, assuming you're not checking in binary stuff, it works
the same. Some advantages are:

1) Only the differenes between versions are saved, keeping the
        repository size small.
2) Many people can use and/or update the text at any time.
3) Versions can be tagged with a release tag, and the entire
        set of files corresponding to that tag can be checked out
        as a unit at any time in the future.
4) Old versions of the file can be compared against new at any time.
5) Other "branches" can be created, such as a development branch
        and a release branch. Any branch may later be merged back
        to the main branch.
6) Access controls are built-in.

There are probably other advantages that might apply that I've
forgotten.

There are access controls available for the different operations
(read/write) so that only certain individuals can have the correct
access. For Xastir we use controlled access for write priviledges
but completely open read priviledges. It's all just ASCII text.

Note: You can use CVS with binary files as well, it just gets
unwieldy. It can't save just the changes but has to save the entire
file each time in that case. For files that don't change often but
are part of the spec (images perhaps), CVS works well.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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75. [aprsspec] Re: SATGATE Specification

From: KC7ZRU - Tate <kc7zru@arrl.net>
Date: Mon, 06 Aug 2001 16:00:35 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28444-2001.08.06-17.23.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Skip!

Project files stored/tracked with CVS are usually plain-text. SourceForge uses CVS, and also provides a
web interface to CVS. Same as the xastir project. (www.xastir.org)

As an example, take a look at http://cvs.sourceforge.net/cgi-bin/viewcvs.cgi/aprsd/aprsd/ click on the
version numbers of each component to view the latest version of that file. This example is for source
code destined to be compiled into a binary, but it works just as well for documents like policies, and
specs or most any other 'group authored' project. Instead of 'component files' you could have 'chapter
files' and even 'sub-chapters'. One nice thing is, stuff can be poked in as needed, no need to perfectly
 anticipate the exact file structure when setting it up ("Dang, didn't know we'd need a chapter
6.A.ii.f.5.x.045" - no prob)

The parent directory for the aprsd project is: http://sourceforge.net/projects/aprsd/

As long as you have a web browser, you can see the work in progress, regardless of OS or platform. With
the SourceForge or TAPR mailing list (likely one or the other - not both, for public comments), feed
back and comments can be easily made.

Do you have some concerns with using CVS/SourceForge that haven't been addressed?

73

K3for@aol.com wrote:

>
> In all the hoo-haa where I think we finally got Jim to volunteer to start gathering some APRSInet spec
 info together (BTW, Jim, I'd rather see it posted for info/comments in plain-text or HTML rather than a
 SourceForge solution, and I'll host it, if you want), I lost track of what we want.
>

--
```
               /\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\/\
               |       CARC Repeater 146.940     DN62        |
               |    http://groups.yahoo.com/group/RM-APRS    |
               |    "The Dungeon" at http://go.to/KC7ZRU     |
               ++++++++++++++++++++++++++++++++++++++++++++++++
```

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76. [aprsspec] Re: SATGATE Specification

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 6 Aug 2001 20:18:12 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-28483-2001.08.06-19.40.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 6 Aug 2001 K3for@aol.com wrote:

> Bob, you're saying that if I'm a satIgate, you want me to pass all
> received packets to APRServe as something like (e.g. PCSAT 1200baud
> down):
WB4APR>APR8TK,W3ADO-1*,K3FOR-1*,TCPIP*:=3909. N/07636. W`000/000/BOB etc

> and my -1 should indicate that I received it on 145.825 1200 baud?

Yes, that was my suggestion. The DIGIPEAETER call for HT's on 145.825
will be W3ADO-1*, for Mobiles using 9600 baud the digipath will be
W3ADO-2. Steve was concerned about all client software being able to
handle the multiple *'s in the paths, but I hope it will work or the
client software can be fixed.

> This would seem to accomplish everything except your SSID rx-mode
> substition. APRServe would see the packet and where it came from, but
> not *how* it came down from the satellite. For now, that is not that
> important. It can be inferrred from the DIGI call...

de WB4APR@amsat.org, Bob

```
ISS-APRS FAQ:       http://www.ew.usna.edu/~bruninga/iss-faq.html
PCsat Design        http://www.ew.usna.edu/~bruninga/pcsat.html
CUBESAT Designs     http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages     http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES     http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite  http://www.toad.net/~wclement/bruninga/mic-lite.html
```

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77. [aprsspec] Re: I'll start work (APRSINET spec)

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 6 Aug 2001 12:22:38 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28493-2001.08.06-20.23.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 6 Aug 2001, Bill Vodall wrote:

> Yes, but be sure to keep a non-SourceForge backup of the work
> being done. Free services have been known to disappear...

EVERY good ham is a packrat, so that minimizes the problem, but yes,
you are absolutely right Bill! I'm not sure what facilities
SourceForge has for doing that, but I'll bet there's something
available.

Curt Mills, WE7U hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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78. [aprsspec] Re: SATGATE Specification

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 6 Aug 2001 14:28:50 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-28556-2001.08.07-00.23.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 6 Aug 2001 K3for@aol.com wrote:

> In all the hoo-haa where I think we finally got Jim to volunteer to start gathering some APRSInet spec
 info together (BTW, Jim, I'd rather see it posted for info/comments in plain-text or HTML rather than a
 SourceForge solution, and I'll host it, if you want), I lost track of what we want.

SourceForge _can_ handle plain-text (ASCII) or html easily. From
the little I know of Tex or Latex, they are also plain text mark-up
languages (like html is), but Tex/Latex are much more powerful
than html.

CVS (what I was talking about in a previous message) is just a way
of getting changes submitted to the repository and ONE of the ways of
checking out the latest revisions. Sourceforge also has ftp sites
and mailing lists built-in, as well as bug-tracking software and todo
lists. If you need to do development on code or documents and if
they can fit under an open-source license, SourceForge is an
excellent way to do it for free.

Most people would not have to learn CVS to participate in
development. One could snag the latest files via ftp/http and
participate via mailing lists/bug tracking software.

People with CVS write access would be the only ones allowed to make
changes directly to the development spec (could be a large group
though). When a release is imminent the maintainer(s) could freeze
development, do the release, put the file onto the ftp/http site,
then open up the repository for the next phase of development. It
sounds much more complicated than it really is.

Curt Mills, WE7U hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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79. [aprsspec] APRS Internet Spec

From: James Jefferson <jjeffers@deskmedia.com>
Date: Thu, 09 Aug 2001 21:51:28 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-29166-2001.08.09-22.12.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I setup a sourceforge project (aprsinet) for the draft APRS internet spec.

Please take a look at http://aprsinet.sourceforge.net/ and visit the CVS
tree with all documents and source code. There isn't much to look at yet,
but with enough contributions (no matter how large or small) the spec will
happen.

If you wish to contribute large sections the draft spec document I can set
you up with CVS write access, otherwise feel free to e-mail me your
additions and changes, and I'll merge them in. CVS allows each version of
each file to be tracked and diff'ed against earlier and later versions - so
the evolution of the documents will be obvious and traceable.

73's,

-Jim Jefferson KB0THN

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80. [aprsspec] Re: APRS Internet Spec

From: KC7ZRU - Tate <737kc7zru373@arrl.net>
Date: Thu, 09 Aug 2001 21:48:12 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-29188-2001.08.09-23.10.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thank you James,

Positive vibes, karma, energy, prayers and support of your choice to all
who participate.

A start....

73

James Jefferson wrote:
>
> I setup a sourceforge project (aprsinet) for the draft APRS internet spec.
>

--
Casper, WY | CARC Repeater
DN62tt | 146.940
"The Dungeon" online at http://go.to/kc7zru
"RTFM" is NOT a 'four letter' word!

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81. [aprsspec] Area Object Sizing

From: Olivier Calle <olivier@calle.org>
Date: Thu, 16 Aug 2001 09:31:04 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-30308-2001.08.16-11.53.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

There was a thread on this topic in late June that started with my
confusion in trying to decode area objects by reading the spec.
After discussion in that thread with Steve Dimse, we concluded that the
spec was a bit misleading and came up with the following equation:
offset_in_degrees = (offset_in_packet / 100)^2

Later, I communicated privately with Bob because this equation still
seemed to create the wrong size areas. He sent me some example objects,
describing their sizes (i.e.: rectangle 20miles by 30miles), for me to
compare. I then was sure that the above equation is not correct.
Bob then sent me a code snippet and I believe I found the correct equation
and a possible explanation of the confusion:
offset_in_degrees = (offset_in_packet^2) / 1500

Using that equation gave me areas with sizes the same as the example
objects that Bob had sent me. I believe the confusion may have come from
the comment near that section of code that talks about 100ths of a degree
squared.

Comments?

--
Olivier Calle

internet: <olivier@calle.org>
work tel: 425-446-5088 home tel: 360-658-2692 To err is human,
callsign: N7TAP, class: General to really foul up

job: Fluke Networks, Sr. Software Engineer   requires the root
WWW Page URL: http://calle.org/olivier/   password...
Psalm 48:14   SPU Electrical Engineering Graduate

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September 2001

Original source file: aprsspec.0109
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0109

1. [aprsspec] What are these packets?

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sat, 1 Sep 2001 22:58:20 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-33765-2001.09.01-23.22.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can somebody please help me figure out what these packets are and what
produces them. As two people were APRS chatting this evening I saw
dozens of packets like this go by:

N0AN>APS200,KI0BW-4,KB0JBF-1,WIDE*:}KI0BW-5>APRS,TCPIP,N0AN*:!!000000D902ED0406----------------00F

It appears that an IGATE is attempting to gate the message to RF. Is
that right? Is the IGATE misconfigured or is this normal behavior.

-Jim Jefferson KB0THN

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---

2. [aprsspec] Re: [aprssig] What are these packets?

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sat, 1 Sep 2001 23:18:26 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-33769-2001.09.01-23.42.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Jim,

The weather station part of the packet I understand. What I'm wondering
about is the } indicating user defined format, as well as what seems to
be a packet encapsulated in the first one. It appears that his packet
made it out to the internet (TCPIP is in the second path), then somebody
gated it back to RF and didn't strip out the original path.

-Jim

> No, this is a weather station format report from N0AN. He's running
an
> Ultimeter 2000 but does not have all of the optional accessories
> connected. Not to worry....
>
> James Jefferson wrote:
> >
> > Can somebody please help me figure out what these packets are and
what
> > produces them. As two people were APRS chatting this evening I saw
> > dozens of packets like this go by:
> >
> >
N0AN>APS200,KI0BW-4,KB0JBF-1,WIDE*:}KI0BW-5>APRS,TCPIP,N0AN*:!!000000D902ED0406----------------00F
> >
> > It appears that an IGATE is attempting to gate the message to RF. Is
> > that right? Is the IGATE misconfigured or is this normal behavior.
> >
> > -Jim Jefferson KB0THN
> >
> > ---
> > You are currently subscribed to aprssig as: KU0G@KCAPRS.ORG
> > To unsubscribe send a blank email to
leave-aprssig-1615Q@lists.tapr.org
> > Questions regarding the SIG go to the SIG administrator:
wa1lou@tapr.org
>
> --
> 73 de Jim, KU0G
> Chairman/Coordinator
> Kansas City APRS Working Group, W0APR
> First Alert Storm Team KMBC-TV9

> Mailto:ku0g@kcaprs.org
> Webpage: http://www.kcaprs.org
>
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] DCC: Last chance for registration discount, and updated program info

From: John Ackermann N8UR <jra@febo.com>
Date: Fri, 07 Sep 2001 12:50:15 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-34735-2001.09.07-12.22.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The early registration discount for both the hotel room rate, and the
registration fee, expires on September 10, so you only have a couple more
days to get your reservations and registration made at the lowest price.
Registrations at the normal price will be available and at the door (of
course, hotel rooms will be subject to availability).

The DCC begins on Friday, September 20 and runs through Sunday, September
22. Full details are available at
http://www.tapr.org/tapr/html/Fdccconf.html.

A couple of updates on the program:

1. We're very happy that Anthony R. Curtis, Ph.D, K3RXK, will be our
speaker at the DCC banquet. Tony's presentation will be titled "40 Years
of Amateur Radio In Space: Where We've Been, Where We Are, and Where We're
Going."

2. We've confirmed that the Packet Radio Users Group (PRUG) of Tokyo,
Japan will be sponsoring a reception and talking about their latest
activities Friday evening. PRUG is really on the cutting edge of digital
radio, and their presentations are always fascinating.

3. We are also fortunate to have three great activities that focus on the
hardware and soldering-iron side of amateur radio:

        * On Saturday, Jay Craswell, W0VNE, will do an introductory program on
using
        CirCAD, a powerful schematic drawing/PCB layout program that's available
(in a
        slightly limited form) for ham use at no cost.

        * Also on Saturday, Ten-Tec's Gary Barbour, AC4DL, will be talking about
Software
        Defined Radio development at Ten-Tec.

        * Our "Sunday Seminar" will feature Dave Newkirk, W9VES, providing a
tutorial
        on using the Serenade SV RF design software; this is another professional
package
        with a free version available for ham use.

We hope to see you there!

John N8UR
President, TAPR
jra@febo.com -- n8ur@tapr.org

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4. [aprsspec] Correction to DCC Post

From: "John R. Ackermann" <jra@febo.com>
Date: Sat, 08 Sep 2001 20:22:57 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: mvarbb@febo.com, tawg-list@tawg.org
Message-ID: <LYR11589-34974-2001.09.08-19.47.52--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

In a previous email I incorrectly stated that the Circad schematic drawing
and PCB layout program is available for Ham use at no cost. I
misunderstood the relationship of the various versions.

There is a highly discounted version of the $995 Circad program available
at $295.   This $295 version is available to Licensed Ham/Amateur Radio
Operators only. Check out http://dover.5u.com/ for more info on the Ham
Discount.

There is a demo version of Circad downloadable at http://www.holophase.com;
although that version can be used to draw small schematics and PCBs, it's
not a replacement for the full program.

I want to apologize to Holophase and to Jay Craswell for improperly
describing the versions of Circad, and to you for any confusion this may
have caused.

73,
John N8UR
President, TAPR
jra@febo.com -- n8ur@tapr.org

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5. [aprsspec] Digital Communications Conference Still On

From: John Ackermann   N8UR <jra@febo.com>
Date: Thu, 13 Sep 2001 17:24:05 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-35908-2001.09.13-16.48.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

With the tragic events of this week, we've had to seriously consider
whether it was still appropriate or feasible to hold the Digital
Communications Conference next weekend (Sept. 20-22) in Cincinnati.
Although we grieve with the whole world for the losses so many have
suffered, we believe it's important to show that terrorism will not succeed
in making us change our way of life.

So, the DCC will go on. We realize that in light of the circumstances,
some folks who have already registered may feel they cannot attend. If
that is the case, please contact the TAPR office (tapr@tapr.org) and we
will arrange a refund of your registration fee. If you are traveling to
the DCC, remember that things may still be somewhat disrupted next week,
and increased security precautions will certainly cause some airport
delays. Check with your airline early and often to make sure they haven't
changed your plans for you.

We realize that this year's DCC may well be smaller, and will certainly be
more somber, than in past years. But we think that going ahead is the
right thing to do, and we hope that you agree.

73,
John

John Ackermann   N8UR   jra@febo.com   http://www.febo.com
President, TAPR   n8ur@tapr.org   http://www.tapr.org

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6. [aprsspec] APRS Working Group Adds Members

From: "John R. Ackermann" <jra@febo.com>
Date: Tue, 18 Sep 2001 19:09:47 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-37006-2001.09.18-18.36.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The APRS Working Group is pleased to announce that Bill Diaz, KC9XG, and
Roger Barker, G4IDE, have joined the WG effective immediately.

Bill is the author of the A-Filter software and has been actively involved

in discussions around the APRS Internet specification. Roger is the author
of UI-view and brings a valuable international perspective to the WG.

We're excited to have them in the Working Group, and look forward to the
value they will add to the APRS standards process.

For the APRS Working Group,

John N8UR
Administrative Chair
jra@febo.com -- n8ur@tapr.org

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7. [aprsspec] Digital Communications Conference -- Final Update

From: "John R. Ackermann" <jra@febo.com>
Date: Tue, 18 Sep 2001 19:32:34 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-37013-2001.09.18-18.57.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Well, the Digital Communications Conference is only a few days away. If
you can make your way to Cincinnati, Ohio this weekend (Sept. 21-22) we
invite you to attend the show -- registration is available at the door.
Full details, including the current schedule, are available at
http://www.tapr.org/dcc.

Here's a brief rundown; note that due to the tragic events of last week,
we've had to make some adjustments to the schedule.

Friday:

Registration Opens	9:00AM	
APRS Forum		1:00 - 6:00PM (The morning part of the Forum has been cancelled.)
PRUG Social		7:00PM (Come enjoy the hospitality and see the latest activities of the Packet Radio Users Group of Tokyo, Japan.)

Saturday:

Registration Opens	7:15AM	
Main Program	8:00AM - 5:00PM	(There will be a mix of introductory sessions on new aspects of digital communication, as well as more advanced topics. We think there'll be something for everyone.)
TAPR Membership Meeting	5:00PM	
Banquet		7:00PM (Anthony Curtis, K3RXK will speak on "40 Years of Amateur Radio in Space.")

NOTE: We've regretfully had to cancel the Sunday Seminar. If you
registered for it, please stop at the registration area or contact TAPR to
arrange a refund.

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8. [aprsspec] Developers

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 22 Sep 2001 18:10:17 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-37874-2001.09.22-18.33.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Is there a forum, other than this one, to speak to the APRS developers,
without involving the main APRS sig?
--
Dave's Engineering Page: http://www.dvanhorn.org

Got a need to read Bar codes? http://www.barcodechip.com
Bi-directional read of UPC-A, UPC-E, EAN-8, EAN-13, JAN, and Bookland, with
two or five digit supplemental codes, in an 8 pin chip, with NO external parts.

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9. [aprsspec] Area Objects Revisited

From: "Rich Beckwith" <wn0x@earthlink.net>
Date: Sun, 23 Sep 2001 22:48:30 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38104-2001.09.23-23.09.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Except for the line object (type 6 - down/left) all area objects are
referenced from their upper left hand corner. This is problematic when
considering the circle, ellipse and triangle objects. Where is the upper
left hand corner of an ellipse, circle, triangle?

Wouldn't it make more sense to say that these objects are referenced from
the upper left hand corner of the "bounding rectangle" containing the
object? The bounding rectangle would be the smallest possible rectangle
containing the area object. All versions of the Windows operating system
reference circles and ellipses drawn by their "bounding rectangle". While I
understand that the original concept was developed as part of APRSDOS, it
might make sense to change the APRS spec in this regard to make it
consistent with the majority of the pc operating systems in use, especially
when we are
trying to gain consistency with the way these objects are drawn on a map. My
guess is that all Intel based operating systems draw these objects in this
fashion. Perhaps our Linux developers can shed some light on this.

Triangles?

Can we assume that we are talking about equallateral triangles? If so,
wouldn't it make sense to refer to the position as the first point on the
triangle, the offset as the second point, then draw the rest of the triangle
in a counter clockwise fashion? This also allows us to draw the triangle at
any "angle".

Also, what would the practical use of a triangle as an area
object be? Can anyone think of examples?

Regards,

Rich - Wn0x

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10. [aprsspec] Re: Area Objects Revisited

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 24 Sep 2001 08:56:52 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38152-2001.09.24-08.21.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 23 Sep 2001, Rich Beckwith wrote:

> Except for the line object (type 6 - down/left) all area objects are
> referenced from their upper left hand corner. This is problematic when
> considering the circle, ellipse and triangle objects. Where is the upper

> left hand corner of an ellipse, circle, triangle?

For the circle it is the upper left corner of a box that contains the
circle.

> Wouldn't it make more sense to say that these objects are referenced from
> the upper left hand corner of the "bounding rectangle" containing the
> object?

Yes. same thing.

>   The bounding rectangle would be the smallest possible rectangle
> containing the area object. All versions of the Windows operating
> system reference circles and ellipses drawn by their "bounding
> rectangle". While I understand that the original concept was
> developed as part of APRSDOS, it might make sense to change the APRS
> spec in this regard to make it consistent with the majority of the pc
> operating systems in use, especially when we are trying to gain
> consistency with the way these objects are drawn on a map. My guess is
> that all Intel based operating systems draw these objects in this
> fashion. Perhaps our Linux developers can shed some light on this.

No change needed, since what you suggest is the way it is supposed to be,
unless you are saying that the wording is confusing?

>
> Triangles?
> Can we assume that we are talking about equallateral triangles? If so,
> wouldn't it make sense to refer to the position as the first point on the
> triangle, the offset as the second point, then draw the rest of the triangle
> in a counter clockwise fashion? This also allows us to draw the triangle at
> any "angle".

The first point is the APEX. THe second point is the lower right. SInce
it is an isosoles triangle, then the other side is defined.

Hope that helps.
bob

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11. [aprsspec] Re: Area Objects Revisited

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Mon, 24 Sep 2001 08:35:58 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38155-2001.09.24-08.56.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Unless I missed something, no mention is made of a bounding rectangle for circles/ellipses. Also, no
mention of how a triangle object is supposed to be drawn either. This would be a big help.

>No change needed, since what you suggest is the way it is supposed to be,
>unless you are saying that the wording is confusing?

Thanks for your help Bob.

Rich - Wn0x

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12. [aprsspec] Re: Area Object Sizing

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Mon, 24 Sep 2001 16:44:01 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38237-2001.09.24-17.05.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

<SNIP>
>Later, I communicated privately with Bob because this equation still
>seemed to create the wrong size areas. He sent me some example objects,
>describing their sizes (i.e.: rectangle 20miles by 30miles), for me to
>compare. I then was sure that the above equation is not correct.
>Bob then sent me a code snippet and I believe I found the correct equation
>and a possible explanation of the confusion:

>offset_in_degrees = (offset_in_packet^2) / 1500

>Using that equation gave me areas with sizes the same as the example
>objects that Bob had sent me. I believe the confusion may have come from
>the comment near that section of code that talks about 100ths of a degree
>squared.
>Comments?
>--
>Olivier Calle

 I understand (offset_in_packet^2), but why are you dividing by 1500 intead of 100 (1/100ths of a degree)?

Rich - Wn0x

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13. [aprsspec] Re: Area Objects Symbol Table?

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Mon, 24 Sep 2001 16:58:50 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38239-2001.09.24-17.19.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Is there a reason why the alternet symbol table wasn't used for the area object? I was under the impression that it was required.

>>> Bob Bruninga <bruninga@usna.edu> 07/26/01 07:33AM >>>
Here are the codes for two test objects:

 ;CIRCLE   *071423z3900.00N/07200.00W/l5211325 with a radius of 22.3 mi
 ;RECTANGLE*071424z3900.00N/07200.00W/l9321331 47mi high by 35 mi wide

---
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14. [aprsspec] Re: Area Objects Symbol Table?

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Mon, 24 Sep 2001 17:02:51 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38241-2001.09.24-17.23.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Also, is there supposed to be a "/" after the posit? Shouldn't this be where the symbol id "l" should be? I am not trying to be picky, just making sure I haven't missed something important!

Rich

>>> "Rich Beckwith" <Rich@dps.state.mo.us> 09/24/01 04:58PM >>>

Is there a reason why the alternet symbol table wasn't used for the area object? I was under the impression that it was required.

>>> Bob Bruninga <bruninga@usna.edu> 07/26/01 07:33AM >>>
Here are the codes for two test objects:

 ;CIRCLE   *071423z3900.00N/07200.00W/l5211325 with a radius of 22.3 mi
 ;RECTANGLE*071424z3900.00N/07200.00W/l9321331 47mi high by 35 mi wide

---
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15. [aprsspec] Re: Area Object Sizing

From: Olivier Calle <olivier@calle.org>
Date: Mon, 24 Sep 2001 15:05:33 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38249-2001.09.24-17.30.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 24 Sep 2001, Rich Beckwith said:
RB> I understand (offset_in_packet^2), but why are you dividing by 1500
RB> intead of 100 (1/100ths of a degree)?

First of all, forget what the spec says. From what I understand, the
information in the spec is the best that the spec writer could come up
with when he wrote it and it did not receive much attention before the
spec was released.

If you check out the archives of this list, you will see a few threads on
the topic of area objects, at least one instigated by me. The division by
1500 was something I found after talking to Bob and receiving a snippet of
basic code from him (presumably of APRSdos). I can assure you that this
code I saw does the following operation:
(offset_in_packet ^ 2) / 1500

My theory on where the 100ths comes from is the _comment_ at this line of
code which says this: Increments of 100ths of a deg^2
Remember, the comment says that but the code does divide by 1500.

If you want to look at code that I believe is correct, check out a CVS
copy of the Xastir source. You can find out how to get it at
www.xastir.org

73,

--
Olivier Calle

internet: <olivier@calle.org>
work tel: 425-446-5088   home tel: 360-658-2692   To err is human,
callsign: N7TAP, class: General   to really foul up
job: Fluke Networks, Sr. Software Engineer   requires the root
WWW Page URL: http://calle.org/olivier/   password...
Psalm 48:14   SPU Electrical Engineering Graduate

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16. [aprsspec] Re: Area Objects Symbol Table?

From: Olivier Calle <olivier@calle.org>
Date: Mon, 24 Sep 2001 15:07:38 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38252-2001.09.24-17.32.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 24 Sep 2001, Rich Beckwith said:
RB> Also, is there supposed to be a "/" after the posit? Shouldn't this
RB> be where the symbol id "l" should be? I am not trying to be picky,
RB> just making sure I haven't missed something important!
...
RB> Is there a reason why the alternet symbol table wasn't used for the
RB> area object? I was under the impression that it was required.

I'm not sure, but it may be that Bob typed these in by hand. As far as I

can gather, your comments above are accurate and correct.

73,

--
Olivier Calle

internet: <olivier@calle.org>
work tel: 425-446-5088   home tel: 360-658-2692   To err is human,
callsign: N7TAP, class: General   to really foul up
job: Fluke Networks, Sr. Software Engineer   requires the root
WWW Page URL: http://calle.org/olivier/   password...
Psalm 48:14   SPU Electrical Engineering Graduate

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17. [aprsspec] Re: Area Objects Symbol Table?

From: "Roger Bille" <roger.bille@telia.com>
Date: Tue, 25 Sep 2001 00:22:21 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38257-2001.09.24-17.46.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Rich,

  Try these instead:

;CIRCLE   *071423z3900.00N\07200.00Wl5211325 with a radius of 22.3 mi
;RECTANGLE*071424z3900.00N\07200.00Wl9321331 47mi high by 35 mi wide

 Note the backslash between the lat/long and no slash after the W. Also note
that the character after W is a lower case L and not digit one.

 73 de sm5nrk/Roger

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18. [aprsspec] Re: Area Object Sizing

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 24 Sep 2001 18:24:39 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38259-2001.09.24-17.49.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 24 Sep 2001, Rich Beckwith wrote:

> I understand (offset_in_packet^2), but why are you dividing by 1500
> intead of 100 (1/100ths of a degree)?

To scale it down to usable sizes. Since we only had digits from 01 to 99,
then we only had a certain range of sizes. It was felt that 1500 as a
divisor got them down to small sizes that were useful while not limiting
the large ones too much...

So it is just a random scaling factor.
If I remember correctly the smallest box can be 60 feet across?
and the largest 100 miles or so? Been a long time... so you are closer to
knowning the answer than I without a lot of research...

But we did want to be able to draw a small box...
Bob

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19. [aprsspec] Re: Area Objects Symbol Table?

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 24 Sep 2001 18:30:52 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38260-2001.09.24-17.55.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 24 Sep 2001, Rich Beckwith wrote:

> Is there a reason why the alternet symbol table wasn't used for the
> area object? I was under the impression that it was required.

Yes, I goofed! SHould have been an alternate table. I better check my
code. (It originally was primary until we added the alternate table)
then it made more sense for it to be an alternate. So we wwrote the spec
that way. Most of us probably accept either. But I should definately
not have been transmitting it that way!

> > > >>> Bob Bruninga <bruninga@usna.edu>
07/26/01 07:33AM >>> > Here are the codes for two test objects:
>
> ;CIRCLE   *071423z3900.00N/07200.00W/l5211325 with a radius of 22.3 mi
> ;RECTANGLE*071424z3900.00N/07200.00W/l9321331 47mi high by 35 mi wide
>
>

de WB4APR@amsat.org, Bob

ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
PCsat Design   http://www.ew.usna.edu/~bruninga/pcsat.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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20. [aprsspec] Re: Area Object Sizing

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 24 Sep 2001 15:32:06 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38261-2001.09.24-17.56.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 24 Sep 2001, Rich Beckwith wrote:

> I understand (offset_in_packet^2), but why are you dividing by
> 1500 intead of 100 (1/100ths of a degree)?

Because the spec itself is wrong! It has a few other deficiencies:

Ellipses haven't been implemented in any software yet (someone
correct me if I'm wrong).

Triangles are always isosceles triangles, oriented vertically as Bob
said. The spec needs more detail as to their definition, including
the fact that they are isosceles, oriented vertically, and where
the point of reference is located.

The exact definition of circles isn't specified in the spec. I think
Bob said they fit inside a box with the lat/lon dimensions in the
packet.

The point of reference for objects is different than the spec uses.
Spec says upper-left. Lower-right is correct for some, one line uses
lower-left, one line uses lower-right, circles use center, and
triangles use lower-right again.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

21. [aprsspec] Re: Area Objects Symbol Table?

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 24 Sep 2001 18:37:20 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38264-2001.09.24-18.01.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Wow, I really screwed up that one. Yes, I have no idea how or why I put
the "/" in there! Yes, it should be the lower case "L".

good eye..

bob

On Mon, 24 Sep 2001, Rich Beckwith wrote:

> Also, is there supposed to be a "/" after the posit? Shouldn't this
> be where the symbol id "l" should be? I am not trying to be picky,
> just making sure I haven't missed something important!
>
> Rich
>

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22. [aprsspec] Re: Area Object Sizing

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Tue, 25 Sep 2001 17:04:28 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38494-2001.09.25-17.25.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

<SNIP>
>The point of reference for objects is different than the spec uses.
>Spec says upper-left. Lower-right is correct for some, one line uses
>lower-left, one line uses lower-right, circles use center, and
>triangles use lower-right again.

Curt, I don't think this is right. I believe all the shapes are referenced by the upper left corner of the "Bounding Rectangle" that contains the area object, even for circles.

The only exception is #6 - Line (offset: Down/Left)

Incidently, if you use a bounding rectangle, there is no need for a "circle" object. It is simply an ellipse bounded by a rectangle of equal sides (square).

Bob,

I noticed that if I use the example circle you provided I end up drawing an ellipse. Can this be corrected and still project the maps in WGS84?

Rich - Wn0x

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23. [aprsspec] Re: Area Object Sizing

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 25 Sep 2001 19:49:16 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38523-2001.09.25-19.19.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 25 Sep 2001, Rich Beckwith wrote:

> I noticed that if I use the example circle you provided I end up
> drawing an ellipse. Can this be corrected and still project the maps
> in WGS84?

In what kind of software? Or map projection? Mercator? Circles of equal
radius on those maps (Like WinAPRS) will always are an elipse. APRSdos
varies its longitude extent by the cosine of the latitude so that a circle
of equal range is a circle on the map... It really doesnt matter. As
long as a "circle" of radius 50 miles plots as a graphic that is 50 miles
in all directions from the center...

Hope that helps
Bob

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24. [aprsspec] Re: Area Object Sizing

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 26 Sep 2001 15:31:18 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-38766-2001.09.26-17.56.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 25 Sep 2001, Rich Beckwith wrote:

> <SNIP>
> >The point of reference for objects is different than the spec uses.
> >Spec says upper-left. Lower-right is correct for some, one line uses
> >lower-left, one line uses lower-right, circles use center, and
> >triangles use lower-right again.
>
> Curt, I don't think this is right. I believe all the shapes are referenced by the upper left corner
of the "Bounding Rectangle" that contains the area object, even for circles.

Nope. You're probably looking at the spec. It's not correct in this
instance. That part of the spec evidently wasn't gone through with
a fine-toothed comb before release. See how APRSdos does it. That's
basically the first reference implementation, and the spec was
written after APRSdos. Note that you'll see size differences still
between WinAPRS and APRSdos w.r.t. area objects. I think the sizes
are the same now between APRSdos and Xastir, thanks to Olivier.

> Incidently, if you use a bounding rectangle, there is no need for a "circle" object. It is simply an
ellipse bounded by a rectangle of equal sides (square).

No argument there. The area object definitions in the spec could use
some rethinking (my opinion).

> I noticed that if I use the example circle you provided I end up drawing an ellipse. Can this be
corrected and still project the maps in WGS84?

The reason it draws an ellipse with some map software/map projections
is that the aprs spec defines the sizes in lat/long, not in
distances. You have to mismatch the X/Y offsets in order to see
circles or squares with any map software that uses equal-distance
projections. I think I said that right.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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25. [aprsspec] Re: Area Object Sizing

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Thu, 27 Sep 2001 08:31:31 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38854-2001.09.27-08.52.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>>> "Curt Mills, WE7U" <hacker@tc.fluke.com> 09/26/01 05:31PM >>>
On Tue, 25 Sep 2001, Rich Beckwith wrote:

> <SNIP>
> >The point of reference for objects is different than the spec uses.
> >Spec says upper-left. Lower-right is correct for some, one line uses
> >lower-left, one line uses lower-right, circles use center, and
> >triangles use lower-right again.
>
> Curt, I don't think this is right. I believe all the shapes are referenced by the upper left corner
of the "Bounding Rectangle" that contains the area object, even for circles.

We would have to check with Bob, but am am positive he advised that even circles are referenced from the
 upper left hand corner of their bounding rectangle. It does make sense to draw a circle from its center
 though. Much easier for the end user to visualize when they are creating the object.

If you have a test log, I would be glad to run it and send the output to you for comparison. Heck, lets
 post it on a web site so people can look at it and compare.

Rich - Wn0x

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26. [aprsspec] Re: Area Object Sizing

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 27 Sep 2001 11:53:13 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38880-2001.09.27-11.18.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 27 Sep 2001, Rich Beckwith wrote:

> We would have to check with Bob, but am am positive he advised that
> even circles are referenced from the upper left hand corner of their
> bounding rectangle. It does make sense to draw a circle from its
> center though. Much easier for the end user to visualize when they
> are creating the object.

Yes, "bounded by the box" but the box in this case is defined in the
AREA-OBJECT format as the upper left corner and the center...
bob

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27. [aprsspec] Re: Area Object Sizing

From: "Rich Beckwith" <Rich@dps.state.mo.us>
Date: Thu, 27 Sep 2001 13:02:33 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38921-2001.09.27-13.23.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> We would have to check with Bob, but am am positive he advised that
> even circles are referenced from the upper left hand corner of their
> bounding rectangle. It does make sense to draw a circle from its
> center though. Much easier for the end user to visualize when they
> are creating the object.

>>Yes, "bounded by the box" but the box in this case is defined in the
>>AREA-OBJECT format as the upper left corner and the center...
>>bob

Now you have lost me. How can the circle be "bounded" by its upper left hand corner and the center? To be "bounded" the circle must lie completly within the boundries of the rectangle. Are you saying the the Offset is the center of the circle, and the POSIT is the upper left hand corner?

Rich

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28. [aprsspec] Re: Area Object Sizing

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 27 Sep 2001 11:59:35 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-38928-2001.09.27-14.24.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 27 Sep 2001, Rich Beckwith wrote:

> > Curt, I don't think this is right. I believe all the shapes are referenced by the upper left corner of the "Bounding Rectangle" that contains the area object, even for circles.

It's the lower-right corner though. The spec is _wrong_ in this
regard. WinAPRS draws area with different sizes than APRSdos, but I
think it draws them with the same reference point (lower-right).

I can't claim to remember anymore what Bob said about circles.
The Xastir developer who coded the area objects went through great
pains to make sure that they agreed with Bob view. It's always
possible he missed one though.

I could start up a virtual machine here to test things but don't have
the time right now. Would have to install the programs and such.

Can someone with WinAPRS and/or DOSaprs create a few area objects and
report back where the reference point is located? Also the
approximate sizes of the objects?

> We would have to check with Bob, but am am positive he advised that even circles are referenced from the upper left hand corner of their bounding rectangle. It does make sense to draw a circle from its center though. Much easier for the end user to visualize when they are creating the object.
>
> If you have a test log, I would be glad to run it and send the output to you for comparison. Heck, lets post it on a web site so people can look at it and compare.

I'm game. I'd like to see what Bob and the rest of the authors have
to say about it. I do have a test file, but I'd have to run it down.

I'll bug Olivier and see what he remembers about circles. It wasn't
too many months ago that he implemented area objects.

It'd be nice to get public buy-in _and_ get the spec corrected, so
that new authors don't go down the wrong path.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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29. [aprsspec] Re: Area Object Sizing

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 27 Sep 2001 15:14:56 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38931-2001.09.27-14.39.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 27 Sep 2001, Rich Beckwith wrote:

> > We would have to check with Bob, but am am positive he advised that
> > even circles are referenced from the upper left hand corner of their
> > bounding rectangle. It does make sense to draw a circle from its
> > center though. Much easier for the end user to visualize when they
> > are creating the object.
>
> >>Yes, "bounded by the box" but the box in this case is defined in the
> >>AREA-OBJECT format as the upper left corner and the center...
> >>bob
>
> Now you have lost me. How can the circle be "bounded" by its upper
> left hand corner and the center? To be "bounded" the circle must lie
> completly within the boundries of the rectangle. Are you saying the
> the Offset is the center of the circle, and the POSIT is the upper
> left hand corner?

Upper left corner of the box and center of the box
bob

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30. [aprsspec] Re: Area Object Sizing

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 27 Sep 2001 15:25:53 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38932-2001.09.27-14.50.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

To answer Kurts question:

It is "upper left to lower right". But I think the lower right point is
the LAT/LONG tranmsmitted and the offset then refers back to the "offset
point" which is the upper left.

THis is all just symantics. You see, in DOS you have to move the cursor
to the upper left corner. Then center the MAP as the starting point.
(hit HOME key) then move cursor down to the lower right and hit
INPUT-ADD-OBJECT etc... Thus "upper left to lower right"...

But it is the coordinates of the CURSOR (now in the lower right) that are
placed into the OBJECT format and the offset referrs back to the original
upper left point which is now at the center of the APRSdos map.

You see, APRS dos has no click and drag. SO I used the MAP center and
cursor locations as the two points to define objects...

Hope that helps...

de WB4APR@amsat.org, Bob

ISS-APRS FAQ:	http://www.ew.usna.edu/~bruninga/iss-faq.html
PCsat Design	http://www.ew.usna.edu/~bruninga/pcsat.html
CUBESAT Designs	http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages	http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES	http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite	http://www.toad.net/~wclement/bruninga/mic-lite.html

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31. [aprsspec] Re: Area Object Sizing

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 27 Sep 2001 13:34:19 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-38960-2001.09.27-17.44.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 27 Sep 2001, Rich Beckwith wrote:

> > We would have to check with Bob, but am am positive he advised that
> > even circles are referenced from the upper left hand corner of their
> > bounding rectangle. It does make sense to draw a circle from its
> > center though. Much easier for the end user to visualize when they
> > are creating the object.
>
> >>Yes, "bounded by the box" but the box in this case is defined in the
> >>AREA-OBJECT format as the upper left corner and the center...
> >>bob
>
> Now you have lost me. How can the circle be "bounded" by its upper left hand corner and the center?
To be "bounded" the circle must lie completly within the boundries of the rectangle. Are you saying the
 the Offset is the center of the circle, and the POSIT is the upper left hand corner?

Very close. The posit is the center of the circle, and the offset is
the upper left corner of the bounding box.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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32. [aprsspec] Re: Area Object Sizing

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 27 Sep 2001 14:44:27 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-39013-2001.09.27-22.44.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 27 Sep 2001, Rich Beckwith wrote:

> If you have a test log, I would be glad to run it and send the output to you for comparison. Heck,
lets post it on a web site so people can look at it and compare.

Hopefully you saw that last message from Bob B. He explained how he
was generating the objects with his software. Good info.

Try this:

        http://www.eskimo.com/~archer/objects.html

It has a link to the file I used to generate the objects as well as
screen grabs from Xastir.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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October 2001

Original source file: aprsspec.0110
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0110

1. [aprsspec] ADMIN: Monthly Message

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Mon, 08 Oct 2001 19:27:06 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-40914-2001.10.08-18.53.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

PURPOSE

The purpose of the APRS SPEC SIG is to provide a forum for folks interested in discussing the APRS protocol specification.

POSTING MESSAGES

To post messages to the APRS SPEC SIG, send email to aprsspec@lists.tapr.org

APRS SPEC SIG RULES

The APRS SPEC SIG has a few simple rules:

. Be courteous. Abusive, insulting, or rude behavior demonstrated towards another list member is a violation of this rule.

. Stick to the subject, i.e., the APRS protocol specification. Subjects that are only tangentially related to the APRS protocol specification (like ³what kind of printer should I buy to print out my copy of the APRS specification?²) may be considered off-topic. If you start a message with ³this is off-topic□² then you are violating this rule.

. Be succinct when composing a message. (The APRS SPEC SIG software has been optioned to limit the length of each message.)

. When quoting a previous message, only quote the parts of that message you are referencing. (The APRS SPEC SIG software has been optioned to limit the length of a quote.)

. Do not send messages in HTML of Rich Text format.

. Do not send attachments.

. Cross-posting is not permitted. (The APRS SPEC SIG software has been optioned to prevent cross-posting.)

. The APRS SPEC SIG administrator reserves the right to suspend or ban any list member who violates these rules.

UNSUBSCRIBING

To unsubscribe from the APRS SPEC SIG, follow the directions you will find at the bottom of each message you receive from the APRS SPEC.

QUESTIONS, COMMENTS, ETC.

If you have any questions, comments, etc. concerning the APRS SPEC, please email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] Sample compressed packets?

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Sat, 13 Oct 2001 16:17:07 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-41614-2001.10.13-16.42.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi,

I'm looking for some samples of compressed (ie BASE-91) packets.

Thanks,

-Jim Jefferson KB0THN

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Re: Sample compressed packets?

From: Alex <kr1st@amsat.org>
Date: Sat, 13 Oct 2001 23:24:11 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-41652-2001.10.13-23.02.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Jim,

You can construct them yourself using the info in the spec. That's what
I just did to test my algorithms for the Cybiko. It gives you a good
understanding of the encoding process.

73,
--Alex

James Jefferson wrote:
>
> Hi,
>
> I'm looking for some samples of compressed (ie BASE-91) packets.
>
> Thanks,
>
> -Jim Jefferson KB0THN
>
> ---
> You are currently subscribed to aprsspec as: kr1st@amsat.org
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
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4. [aprsspec] APRS drawing message

From: "Paul Vizard" <paul@golborne.com>
Date: Sat, 20 Oct 2001 18:07:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-42616-2001.10.20-18.33.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Is there any current work been done on sending pictorial weather
information? To be more specific, a way to send pictorial storm info
(radar, cells etc) or fronts etc.

I have put a few notes together on a drawing message that could in a single
packet, describe multiple drawing items that could be overlaid on a map.

I would welcome any comment.

http://www.golborne.com/pubfiles/APRS%20draw%20message.txt

(Please note that this document is a very early draft)

73, Paul

Paul A Vizard

- K5PAV -
paul@golborne.com

Outgoing mail is certified Virus Free.
Checked by AVG anti-virus system (http://www.grisoft.com).
Version: 6.0.282 / Virus Database: 150 - Release Date: 9/25/01

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] Re: APRS drawing message

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 22 Oct 2001 12:32:16 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-42912-2001.10.22-14.58.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 20 Oct 2001, Paul Vizard wrote:

> I have put a few notes together on a drawing message that could in a single
> packet, describe multiple drawing items that could be overlaid on a map.

Bob B. had proposed a drawing format earlier that would enable
sending multiple line segments in one APRS packet. As far as I know
it was never implemented or added to the spec though. You might to
into the archives and compare yours with his.

If some agreement could be made on this issue, I'd certainly try to
contribute by adding the feature to one software package. I'd like
more drawing capability than the APRS spec currently provides for.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] PHG calculation

From: Mark Cheavens <mcheavens@usa.net>
Date: Tue, 23 Oct 2001 15:18:42 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-43114-2001.10.23-15.44.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I would like to hear some comments about the PHG calculation and why it
appears to me that it does not take into account for the earth's curvature.

While doing to recent upgrades to the TNC's in the Houston area (All
running UIDIGI) I was twiddling with PHG numbers so that I could get
accurate coverage circles drawn around them. Most of the digis that I have
(or control) are on tall buildings or towers, usually co-located with voice
repeaters that are of known coverage areas.

I will just use ONE site in my example since it is easy to deal with.
Site location: Building top in Downtown Houston. Terrain FLAT (less than
100 feet of elevation change in any direction for 60-100miles). Building
elevation above ground 650ft (pretty close to the 640) Digi Power output:
110Watts, 6DB (DB224 ant). This gives a range of 85miles.
Not a Chance!
IF I play with the numbers I can get the range that is accurate (35 miles
SOLID coverage and 45 miles of 50% missed packets) If I use a number of
9430 for a range of 35miles. I can assure you that NO radio at 160ft covers
that well.

If I play with other values it only gets worse. If I use our former site at
1400ft with a 12dB gain ant and 50Watts (UHF) (PHG7790) shows a range of
126miles....Not a chance! I had trouble shooting two 80 mile link paths
with the both ends using yagi's and 300ft of elevation on the far ends.

I admit I only use APRS+SA so don't know about the others map apps, but
wouldn't it be better to ditch phg and just use rng instead (APRS+SA does
not support RNG).

Comments?

Mark Cheavens
KC5EVE
http://www.cheavens.com/mark
(mcheavens@usa.net)
Where am I now? http://www.findu.com/cgi-bin/find.cgi?kc5eve-9
Where have I been lately? http://www.findu.com/cgi-bin/track1.cgi?kc5eve-9
Where am I w/Weather radar?
http://www.findu.com/cgi-bin/find.cgi?kc5eve-9&radar=***

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7. [aprsspec] Re: PHG calculation

From: "J. Scott Ratchford" <w5jsr@hotmail.com>
Date: Tue, 23 Oct 2001 15:57:25 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-43117-2001.10.23-16.23.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

For what it is worth,

real world, 8 watts at digi (formerly NAARS), home-made j-pole, 600 feet
difference in it and my former location location, 43 miles separation, 100%
copy.

real world, 10 watts at digi (WHTNY), home-made j-pole, 200 feet difference,
over 200 miles separation, over 50% copy. digi-to-digi.

real world, 10 watts at digi (WHTNY), home-made j-pole, 200 feet difference,
23 miles separation, 100% copy. digi-to-qth.

real world, unknown watts at digi (CVNL), unknown antenna, aprox. 140 feet
difference, 83 miles separation, better than 50% copy. digi-to-qth.

I know that if we go by PHG only, there are some differences in what we
calculate and the real world. The best software I've seen for calculating
coverage areas costs more than I would ever pay for it and uses geographical
data. I have plotted this area and it was very accurate, but not 100%!

If your going to use PHG, then go a little conservative on your numbers and
let it go at that. Then you can claim everything outside the circle as a
bonus! <grin>

73 de W5JSR

From: Mark Cheavens <mcheavens@usa.net>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Subject: [aprsspec] PHG calculation
Date: Tue, 23 Oct 2001 15:18:42 -0500
MIME-Version: 1.0
Received: from [204.17.217.24] by hotmail.com (3.2) with ESMTP id
MHotMailBD9F1BC3007F40043197CC11D91809150; Tue, 23 Oct 2001 13:19:23 -0700
>From bounce-aprsspec-14466@lists.tapr.org Tue, 23 Oct 2001 13:20:10 -0700
Return-Path: <mcheavens@usa.net>
Message-Id:
<LYR14466-43114-2001.10.23-15.44.47--w5jsr#hotmail.com@lists.tapr.org>
X-Sender: mcheavens@pop.amexmail.com
List-Unsubscribe: <mailto:leave-aprsspec-11589P@lists.tapr.org>
List-Software: Lyris Server version 3.0
List-Subscribe: <mailto:subscribe-aprsspec@lists.tapr.org>
List-Owner: <mailto:owner-aprsspec@lists.tapr.org>
X-List-Host: Tucson Amateur Packet Radio <http://www.tapr.org>
X-Message-Id: <4.3.1.2.20011023143753.00c12340@pop.amexmail.com>
Sender: bounce-aprsspec-14466@lists.tapr.org
Precedence: bulk

I would like to hear some comments about the PHG calculation and why it
appears to me that it does not take into account for the earth's curvature.

While doing to recent upgrades to the TNC's in the Houston area (All
running UIDIGI) I was twiddling with PHG numbers so that I could get
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(or control) are on tall buildings or towers, usually co-located with voice
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1400ft with a 12dB gain ant and 50Watts (UHF) (PHG7790) shows a range of
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with the both ends using yagi's and 300ft of elevation on the far ends.

I admit I only use APRS+SA so don't know about the others map apps, but
wouldn't it be better to ditch phg and just use rng instead (APRS+SA does
not support RNG).

Comments?

Mark Cheavens
KC5EVE
http://www.cheavens.com/mark
(mcheavens@usa.net)
Where am I now? http://www.findu.com/cgi-bin/find.cgi?kc5eve-9
Where have I been lately? http://www.findu.com/cgi-bin/track1.cgi?kc5eve-9
Where am I w/Weather radar?
http://www.findu.com/cgi-bin/find.cgi?kc5eve-9&radar=***

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_____
Get your FREE download of MSN Explorer at http://explorer.msn.com/intl.asp

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] Re: PHG calculation

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 23 Oct 2001 16:58:18 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-43118-2001.10.23-16.24.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

It was designed around relatively low antennas and it also more or less
used radio ranges for voice repeatetrs (which works for fixed stations).
But AX.25 mobiles suffer 30 dB or so worse performance because of mobile
flutter (multipath) so the REAL circles are LOTS smaller than the PHG for
a fixed station...

Problem is, we have such a mix of mobiles and fixed stations, that what is
right for one is wrong for the other. I would prefer that we draw TWO
circles around each PHG station. One is the existing one and the other is
about HALF the range and is for mobiles.. hummh.....

Bob
 On Tue, 23 Oct 2001,
Mark Cheavens wrote:

> I would like to hear some comments about the PHG calculation and why it
> appears to me that it does not take into account for the earth's curvature.
> snip>
> I admit I only use APRS+SA so don't know about the others map apps, but
> wouldn't it be better to ditch phg and just use rng instead (APRS+SA does
> not support RNG).
> Mark Cheavens
> KC5EVE
> http://www.cheavens.com/mark
> (mcheavens@usa.net)

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9. [aprsspec] Re: PHG calculation

From: Jeff King <jeff@aerodata.net>
Date: Tue, 23 Oct 2001 17:13:15 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-43120-2001.10.23-16.42.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

J. Scott Ratchford wrote:

> calculate and the real world. The best software I've seen for
> calculating coverage areas costs more than I would ever pay for it and
> uses geographical data. I have plotted this area and it was very
> accurate, but not 100%!

Try Radio Mobile: http://www.cplus.org/rmw/english1.html

Free and fairly accurate. Plus now has APRS support.

-Jeff

|---|
| Jeff King   248-471-1787 F 248-471-0279 e-mail: jeff@aerodata.net |
| |
| "They that give up essential liberty to obtain a little temporary safety|
deserve neither liberty nor safety." -- Benjamin Franklin, 1759

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November 2001

Original source file: aprsspec.0111
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0111

1. [aprsspec] ADMIN: Monthly Reminder

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sat, 03 Nov 2001 09:39:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-44986-2001.11.03-09.07.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

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Stan Horzepa, WA1LOU, wa1lou@tapr.org

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2. [aprsspec] NAVI-TRA Conversion

From: James Jefferson <jjeffers@deskmedia.com>
Date: Wed, 7 Nov 2001 18:52:31 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsinet-spec@lists.sourceforge.net
Message-ID: <LYR11589-45784-2001.11.07-19.19.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Everyone,

I implemented a very simple NAVI-TRA posit to APRS conversion (per Bob's
specification)

Here is a sample packet:
SOURCE>APRS:@072146z3546.79N/13929.51Er005/000/TOKOROZAWA

that was generated with the following input (captured from real data)
SOURCE>APRS:$PNTS,1,0,07,11,2001,214654,3546.793,N,13929.515,E,64,,5,TOKOROZAWA,000,1*16

I've attached the source code, which I developed on a Linux box (but should
work on anything, hopefully). It's not pretty, but I think it works.

-James Jefferson KB0THN

```
#include <stdio.h>
#include <string.h>

double atof();

unsigned char
nmea_0183_checksum (char *p)
{
  int checksum, start, done;
  checksum = start = done = 0;

  for (; *p != '\0'; p++)
    {
    if (*p == '*')
                done = 1;
    if (start == 1 && done == 0)
                checksum = checksum ^ *p;       // XOR
    if (*p == '$')
                start = 1;
    }
  return checksum;
}

int main(void)
{
char information[256];
char *p = information;
char buffer[256];

int i=0;
int j;
int len=0;
char elements[20][20];    // Store each element until we can put in structure
int element, last, checksum;
unsigned char local_checksum;


int hhmm;
double latitude;
double longitude;
int speed=0;
int direction=0;

char symbol_table[] = { '0', 'Y', 'B', 'G', 'R', '/', '/', '/', '\\', '/',
'\\', '/', '/', '/', '\\' };
char symbol_code[] = { 'n', 'n', 'n', 'n', 'n', 'r', '-', 'V', ';', 'w', '<',
'\'', 's', 'P', 'R' };
```

```
//strcpy(information,"$PNTS,1,0,06,11,2001,002440,3531.676,N,13943.343,E,00,000,6,,000,1*28");
strcpy(information,"$PNTS,1,0,07,11,2001,214654,3546.793,N,13929.515,E,64,,5,TOKOROZAWA,000,1*16");

local_checksum = nmea_0183_checksum (p);

if ( strstr(information,"$PNTS") )
        {
#if DEBUG
        printf("####################NAVI-TRA Packet##########################\n");
        printf("Information: %s\n",information);
#endif

        for (i = 0; i < 20; i++)
                strcpy (elements[i], "");

        i = 0;
        element = 0;
        len=strlen(p);

        for ( ; j < len && (element < 20) ; p++, i++, j++)
                {
                if ( last == ',' && *p == ',' )
                        elements[element][0] = '\0';  // make it a string!

                if (last == ',')
                        i=0;
                if (*p == ',')
                        {
                        elements[element][i] = '\0';  // make it a string!
                        i = 0;
                        element++;
                        }
                elements[element][i] = last = *p;
                }
                elements[element][i] = '\0';  // make it a string!

#if DEBUG
        for (i = 0; (i < 20); i++)
                if (strcmp (elements[i], ""))
                        printf ("elements[%d]: %s\n", i, elements[i]);
#endif

        hhmm = atoi(elements[6]) / 100;
        latitude = atof(elements[7]);
        longitude = atof(elements[9]);
        speed = atoi(elements[12]);
        direction = 360 / atoi(elements[11]);

        strtok(elements[16],"*");

        checksum=0;
        sscanf (strtok(NULL,"*"), "%2x", &checksum);
#if DEBUG
        printf ("Scanned checksum: %02x Calculated: %02x\n",
checksum,local_checksum);
#endif

        if ( checksum == local_checksum )       // checksum is good
                {
                printf("@%s%04dz",elements[3],hhmm);
                printf("%04.2lf%s",latitude,elements[8]);
                printf("%c",symbol_table[atoi(elements[13])]);
                printf("%05.2lf%s",longitude,elements[10]);
                printf("%c",symbol_code[atoi(elements[13])]);
                printf("%03d/%03d/%s",direction,speed,elements[14]);
                printf("\n");
                } else {
                printf("Checksum failed!");
                return -1;
                }
        }


return 0;
}


---
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```

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Re: NAVI-TRA Conversion

From: James Jefferson <jjeffers@deskmedia.com>
Date: Wed, 7 Nov 2001 20:04:51 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsinet-spec@lists.sourceforge.net
Message-ID: <LYR11589-45804-2001.11.07-20.31.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Okay, there is a bug in that ... I forgot to initialize int j

in main change:

int j;

to

int j=0;

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December 2001

Original source file: aprsspec.0112
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0112

1. [aprsspec] Season's Greetings

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sat, 01 Dec 2001 09:25:12 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-49500-2001.12.01-08.53.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] Timestamp in object message

From: Jim Wagner <wagnerj@proaxis.com>
Date: Sat, 8 Dec 2001 21:25:11 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-51002-2001.12.08-23.53.26--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Hello, APRS Sig -

The list has been a bit quiet for a while. Here is a question that may well
have been answered previously, but lacking a searchable list archive, I
can't seem to find the answer.

On page 58 of the specification, it says: "An Object always has a timestamp."

But, on the previous page, 3rd paragraph, it says: "Object Reports specify
an Object's position, can have an optional timestamp, and can include ...."

Which one of these is correct?

Many thanks to all of you,

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM near Corvallis OR, home of
ka7ehk@yahoo.com Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
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3. [aprsspec] WX Setup

From: "Mohamed bin Jabor Althani" <a71ey@qatar.net.qa>
Date: Sun, 9 Dec 2001 15:01:55 +0300
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-51047-2001.12.09-06.29.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can somebody help how to connect my Davis WX with TNC im using her KPC-3+
running winaprs v2.5.1.

Thank you

Mohamed -A71EY
Qatar

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

4. [aprsspec] e: Timestamp in object message

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 9 Dec 2001 12:07:49 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-51093-2001.12.09-11.35.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Regarding the time stamp in Objects:

I think that is a mistake in the writing of the spec. APRSdos and I dont
think any of the other original progams recognized a format without a time
stamp. This is because unlike the @,/,= and ! formats which DO and DO-NOT
have time stamps, the object format has no such sub-identifiers. THus
heuristics would have to be used to tell the differece and that was not
our plan.

But once we moved the ";" to the front of the packet, then that DOES leave
open the possibilty of redefining the meaning of th "*" characte which
could then have other modifiers. But this would have to be a NEW ADDITION
to the spec VERSION 2...

bob

On Sat, 8 Dec 2001, Jim Wagner wrote:

> The list has been a bit quiet for a while. Here is a question that may well
> have been answered previously, but lacking a searchable list archive, I
> can't seem to find the answer.
>
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> Oregon Research Electronics

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5. [aprsspec] RE: e: Timestamp in object message

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 9 Dec 2001 13:18:56 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-51108-2001.12.09-12.47.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 9 Dec 2001, Pete Loveall AE5PL wrote:

> Isn't an Item an Object without a timestamp (basically)? javAPRS
> handles them the same, except that it expects a timestamp in an Object.

Ah yes. That is why we saw no need for the options under OBJECTS..
thaks for the refresher...

bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Hi Speed Data ThroughPut Via Ham Radio!

From: "Jerome M. Kutche" <n9lya@blueriver.net>
Date: Fri, 28 Dec 2001 23:41:06 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <w8akf@juno.com>, <SIMMONSVIGIL1@aol.com>,
        "Duane Edmonson" <duaneedmonson@hotmail.com>
Message-ID: <LYR11589-53978-2001.12.28-23.18.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

http://www.dandin.com/tdr900.html

http://www.tapr.org/tapr/html/taprfhss.html

Hi All Hams,

    ISDN Speeds over ham packet radio...

    Check out these two webpages... It sounds like the next phase of Amateur Digital Communications...

    As far as building a nationwide Network.. Read on about it ... and consider the possibilities...
they are talking of Internet Radio over Ham Radio... It seems it could be used for the present store and
 forward packet radio and work as one with that also???

    I as an Amateur Radio Operator plan to follow this with much interest and quite possibley jump right
 in as it comes to be...

    I Urge all Hams to follow this with a watchful eye, and consider atleast stopping by the webpages
and if you like what you see.. Let them know that there is much interest in their new project at
TAPR....

I also urge all Ham Radio Clubs to pass this info on to its members, so we are ready to act when the time comes to both support and encourage the faster Digital Links...

Its time to Put RF back into Ham Radio...

Once it gets going either put up a high speed link in your area or urge your local Amateur radio Club to put up high speed links and or help support them in your area...

But above all please atleast follow the above links and inform as many Amateur Radio ops or soon to bees.. about the TAPR Project...!!!

Best 73 And Happy New Year!!!

Jerry kutche N9LYA
HHHCVP
TAPR and ARRL Member...
Sysop of W9QYQ's Ham Radio Packet Station

www.blueriver.net/~n9lya

n9lya@w9qyq.#sin.in.usa.noam

January 2002

Original source file: aprsspec.0201
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0201

1. [aprsspec] ADMIN: Happy New Year!

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Tue, 01 Jan 2002 17:23:59 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-54547-2002.01.01-16.54.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

PURPOSE

The purpose of the APRS SPEC SIG is to provide a forum for folks interested in discussing the APRS protocol specification.

POSTING MESSAGES

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APRS SPEC SIG RULES

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. Be courteous. Abusive, insulting, or rude behavior demonstrated towards another list member is a violation of this rule.

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. Do not send attachments.

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QUESTIONS, COMMENTS, ETC.

If you have any questions, comments, etc. concerning the APRS SPEC, please email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

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2. [aprsspec] ADMIN: Changes to this list

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Thu, 03 Jan 2002 20:17:19 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>

Message-ID: <LYR11589-54976-2002.01.03-19.46.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Earlier today, I changed two of the options of this list:

1. Only subscribers to this list are now allowed to contribute messages
to this list.

2. All new subscribers to this list must be approved by the
administrator of this list.

Item 1 means that you can only send messages to the list from the email
address that you subscribed with. If you are using a different email address
to send messages to this list, you will have to subscribe with that email
address, too. (If you do this, you can eliminate the duplicate receipt of
messages from the list by setting one of your subscriptions to receive no
mail from the list.)

Item 2 means more work for me, but that's why I get paid the big bucks for
administrating this list.

I made these changes to APRSSIG last year and they eliminated the spam and
other nonsense that the APRSSIG was experiencing. The changes should have
the same effect here.

By the way, some may ask why I don't set up some filters to eliminate the
problem, but that is not an option with the SIG software TAPR uses.

Thank you for your cooperation,

Stan, WA1LOU, Your List's Administrator

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] PCSAT

From: "Mohamed bin Jabor Althani" <a71ey@qatar.net.qa>
Date: Fri, 18 Jan 2002 15:50:18 +0300
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>,
"AMSAT-BB" <amsat-bb@AMSAT.Org>
Message-ID: <LYR11589-57840-2002.01.18-07.20.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi All
her PCSAT tlm 9600bud
time 12:37 UTC
locator LL55RJ   N 25 24 16, E 051 25 23

PCSAT-12>GPSODS,SGATE:
{F401149477435.6999913   +0.00   +0.00
C

PCSAT-12>GPSODS,SGATE:
{F411149477434.9999913 60782.9392210
 83055437.93 -6332.3+
PCSAT-12>GPSODS,SGATE:2222.851 5 20658469.67 -3958.05130
9213299.06   -11.797
PCSAT-12>GPSODS,SGATE:3.131 1 26033639.58 +5585.74125 23137028.09
+6266.88114
PCSAT-12>GPSODS,SGATE:
{F401149477495.0000013 +3730368.14 +3331611.45
+5141651.03

PCSAT-12>GPSODS,SGATE:
{F411149477495.0000013 60842.9391610
 22711726.08 -6023.9
PCSAT-12>GPSODS,SGATE: +0.001 5 20417081.41 -3610.75130   0.00
+0.00+
PCSAT-12>GPSODS,SGATE:0.001 1 26357902.86 +5695.61125 23503042.72
+6405.941144
PCSAT-12>BEACON,SGATE:T#282,132,137,141,118,213,00011011,0001,1

PCSAT-12>GPSODS,SGATE:
{F401149477525.0000013 +3752074.90 +3503613.20
+5010032.6E

```
PCSAT-12>GPSODS,SGATE:
                      {F431149477525.7131150 6144017121010 31843 305962c
629-20
PCSAT-12>GPSODS,SGATE:
                      {F431149477525.7131150 6144017121010 31843 305962c
629-200
PCSAT-12>GPSODS,SGATE:
                      {F401149477555.0000013 +3770957.23 +3672170.79
+4873558.2E

PCSAT-12>GPSODS,SGATE:
                      {F411149477555.0000013 60902.9391010
 22346316.10 -5671.3+
PCSAT-12>GPSODS,SGATE:3155.601 5  20197062.27 -3242.02130  19240197.43
+933.474
PCSAT-12>GPSODS,SGATE:1.061 1  26687995.46 +5781.40125  23876539.68
+6519.13114
                      {F411149477555.0000013 60902.9391010
 22346316.10 -5671.3+
PCSAT-12>GPSODS,SGATE:3155.601 5  20197062.27 -3242.02130  19240197.43
+933.474
PCSAT-12>GPSODS,SGATE:1.061 1  26687995.46 +5781.40125  23876539.68
+6519.131144

PCSAT-12>APRS3::BLN3PCSAT:www.ew.usna.edu/pcsat   for details of operating

PCSAT-12>BEACON,SGATE:T#283,130,133,089,140,213,00011011,0010,1

PCSAT-12>GPSODS,SGATE:
                      {F401149477585.0000013 +3786903.82 +3837095.37
+4732328.64

PCSAT-12>GPSODS,SGATE:
                      {F431149477585.7131150 6144019121210 29836
287652F1829-190
PCSAT-12>GPSODS,SGATE: -5194 -60081C10 4-15923-170962F14 9 27085
258702F1024 -94

Thank you

Mohamed - A71EY


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```

February 2002

Original source file: aprsspec.0202
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0202

1. [aprsspec] ADMIN: Monthly Message with NEW stuff regarding subscription maintenance

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sun, 03 Feb 2002 16:15:31 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-60855-2002.02.03-16.58.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

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SUBSCRIPTION MAINTENANCE

You may make changes to your subscription (like change your email address, toggle on/off the digest mode, etc.) by logging into the APRS SPEC SIG at http://www.tapr.org/cgi-bin/lyris.pl

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QUESTIONS, COMMENTS, ETC.

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Stan Horzepa, WA1LOU, wa1lou@tapr.org

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2. [aprsspec] weather, part 1

From: "jabennett" <jabennett@sigecom.net>
Date: Sun, 3 Feb 2002 20:05:37 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-60920-2002.02.03-20.37.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Everyone.

I am in the midst of completing the incorporation of APRS compatibility into my weather code (WXN). Before I get into this very deeply, let me say that the group has done a very good job in preparing the document. Also, understand that my primary interest is in the exchange of weather data. While I have done my best to understand how all of this works together so as to not cause any problems, I do not run any other APRS type of software here except my own. Please forgive any misconceptions.

I do have some questions, observations, and a couple of requests. These are not in any particular order. The original message was not accepted by the list server, and therefore has been split into two parts.

1. Although not stated in the protocol, every single APRS packet has a CR appended at the end (0x0d). I imagine this comes from the fact that the SENDPAC and CR parameters in the TNC firmware default to this. The beacon I implemented in the first release did not have a CR appended. The web based APRS sites seem to handle this just fine. However, some locals had problems seeing my station. Probably would not have noticed this except for the fact I am using the KISS interface rather than the standard user interface. Therefore, by the specs, I did not append a CR (this has since been corrected). Might want to consider adding this into the spec.

2. Chapter 12, p. 64: In the positionless weather report format boxed at the top of the page, it appears that the field length for barometric pressure is six, not five as shown. The length of all the others is the character ID plus the length of the numeric data.

3. Chapter 12, p. 66: Second example (compressed position, no timestamp) appears to have an extra character in the string (>). It is inconsistent when compared with the other examples on the same page and with the statement in chapter 9, p. 37 (length is fixed 13 characters). I have been monitoring packets for several days and have yet to see a compressed format, so can't compare this against anything real.

4. One would logically assume that wind speed would use the same units in all types of weather reports. However, if I abide strictly by the rules in the protocol, the examples on pp. 65-66 are using mixed units for wind speed (i.e., c.../s... is in knots and g... is in mph). The positionless report explicitly states that the speed in mph (p. 64). In accordance with the warning at the end of chapter 5, I used knots in the c.../s... section and mph for gusts. Since this behavior is inconsistent, to say the least, I think it would be worth noting this in the appropriate section of chapter 12.

5. In chapter 12, p. 63, the trailing field on the packet can be a 2-4 character field identifying the type of weather station. You have a number of types already defined. My code supports some additional stations not listed. I have added identifiers for stations not listed, and also some alternates. This seems to be consistent with what I have observed on the air. I will still occasionally get a wx packet in which the wx station cannot be identified. I was wondering if there is an updated list, and/or do you want to know what identifiers I have added?

6. Again, in chapter 12, p. 63, the next to the last field is the software identifier. I have elected to use lower case 'n' for my code. If there are future revisions, would you consider adding this to your list?

continued in part 2...

3. [aprsspec] weather, part 2

From: "jabennett" <jabennett@sigecom.net>
Date: Sun, 3 Feb 2002 20:06:42 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-60921-2002.02.03-20.38.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

continued from part 1...

7. My code has been around since 1990. As such, it has used the connected network as a means of exchanging data between the different servers. I want to add the capability to APRS. The purpose of these data packets is allow other WXN servers running APRS to receive the complete dataset, which far exceeds what APRS natively supports at the present. There appears to be two options available: Telemetry Data as described in chapter 13 and the User-Defined Data Format in chapter 18. I decided against the telemetry mode, mainly due to the restriction of 3 characters for a value. In some cases, I have values that are ten digits long. The User-Defined mode seems best suited for my purposes. At this point, I have an alpha version that I am about to begin debugging that uses ASCII comma delimited data with group separators. Currently, I have two defined packet types, each less than 200 bytes (excluding the 3-byte APRS header). I have been unable to find the web site described in the document that shows what the defined user IDs are. On the TAPR site, clicking on the "Working Group" takes you to APRS Spec page. I assume that my request for a "User-Defined Packet Type" character should go to this group. I can furnish what the packet types, data fields and groups are, if so requested. Once I release the version that

incorporates this, the format will be published on my web site.

8. Chapter 20, p.93 discusses the use of the SSID in the source address. In all the packets currently used, the information field contains the APRS symbol for weather, therefore overriding anything else. However, the user-defined packet does not seem to provide for the use of the APRS symbol. Is the source-address SSID ignored for the purpose of determining an appropriate symbol with a user defined packet? If it must be imbedded in the user-defined packet to avoid the problem, is it position independent? Failing that must the symbol be placed into the destination address? Or perhaps, just ignore this?

9. On p. 14 (chapter 4), the last section deals with APRS Software Version number. I have adopted the string 'WXNxxx' where 'xxx' represents the current version number (in light of item #8 above this may need to be modified to avoid the symbol problem). This seems consistent with what I have observed on the air and what's in the spec. If there is no problem with this, I would like to have my identifier added to the list on the next revision.

73,
John Bennett
n4xi
http://members.sigecom.net/jabennett/wxn

4. [aprsspec] Re: weather, part 1

From: David VanHorn <dvanhorn@cedar.net>
Date: Sun, 03 Feb 2002 21:16:46 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-60926-2002.02.03-20.43.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Is there any provision for "no sensor"?
I have seen a lot of weather output where it is obvious that there is
either no sensor, or a drastic error (air pressure 0.0mB)
This was one point that Dr Arnold commented on when I walked him through WAPRS.

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5. [aprsspec] Re: weather, part 1

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 3 Feb 2002 22:04:06 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-60930-2002.02.03-21.35.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 3 Feb 2002, David VanHorn wrote:

> Is there any provision for "no sensor"?

Yes, omit the field. Only the wind speed and direction and TEMP are
actually required (I think)...
At least that was what the original APRSdos did//

bob

> I have seen a lot of weather output where it is obvious that there is
> either no sensor, or a drastic error (air pressure 0.0mB)
> This was one point that Dr Arnold commented on when I walked him through WAPRS.
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Another kind of weather

From: David VanHorn <dvanhorn@cedar.net>
Date: Mon, 04 Feb 2002 18:22:26 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-61175-2002.02.04-17.49.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

http://www.dvanhorn.org/rads.png

This interfaces through a serial port, and APRS stations have the
infrastructure to collect some possibly useful data.
Is there a hole in the spec that it can wedge into?

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7. [aprsspec] Re: Another kind of weather

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 4 Feb 2002 18:21:55 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-61176-2002.02.04-17.53.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I dont have a clue what you are talking about. Is this radiation?
I looked at the plot and all I can guess is that CPM could be counts per
minute and RADS are radiation, but I have no clue what the unit of mesaure
of Muncie is...

Tell me more..

Bob

 On Mon, 4 Feb 2002, David VanHorn wrote:

>
> http://www.dvanhorn.org/rads.png
>
> This interfaces through a serial port, and APRS stations have the
> infrastructure to collect some possibly useful data.
> Is there a hole in the spec that it can wedge into?
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] Re: Another kind of weather

From: David VanHorn <dvanhorn@cedar.net>
Date: Mon, 04 Feb 2002 18:32:43 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-61177-2002.02.04-17.59.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 06:21 PM 2/4/02 -0500, Bob Bruninga wrote:
>I dont have a clue what you are talking about. Is this radiation?
>I looked at the plot and all I can guess is that CPM could be counts per
>minute and RADS are radiation, but I have no clue what the unit of mesaure

>of Muncie is...

It's counts per minute, here in muncie indiana.
The detector is sitting on my desk at the moment, but I have plans for an
outdoor mounting that will be less shielded by the house.
Of course the house doesn't offer much shielding from gammas.

I plan to give it a view of the ground, from about 5', sort of like a
thermometer shield.

I could see this being useful if there was any sort of radiological event,
either deliberate, or accidental. Knowing where the plumes are, would be
helpful.

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9. [aprsspec] Re: Another kind of weather

From: David VanHorn <dvanhorn@cedar.net>
Date: Mon, 04 Feb 2002 19:51:39 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-61198-2002.02.04-19.18.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 07:42 PM 2/4/02 -0500, Bob Bruninga wrote:
>Wow, neat!
>How much, wwhere, etc?

About 150, www.blackcatsystems.com

It's a nice simple box, just plug into a serial port.
I'm using it through a USB serial port now.
Software's pretty basic, but it's doing the job.
You have to install quick time 4.0 to make the pictures.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Ultimeter decoding

From: Jim Wagner <wagnerj@proaxis.com>
Date: Sun, 10 Feb 2002 23:01:09 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-62358-2002.02.11-01.32.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello APRS Spec people -

For some reason, there is no description of the Ultimeter weather station
decoding in the APRS spec. Where would one find that little detail?

Many thanks,

Jim Wagner
Oregon Research Electronics
----
wagnerj@proaxis.com   Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
ka7ehk@yahoo.com   Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
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11. [aprsspec] Request for User Defined Character ID

From: "jabennett" <jabennett@sigecom.net>
Date: Mon, 25 Feb 2002 20:12:04 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Dwight Hazen" <hazen@indiana.edu>, "James Smith" <k9apr@kiva.net>
Message-ID: <LYR11589-65369-2002.02.25-20.44.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

While this was covered in a message sent to the group on 04 February (to which no one has yet replied), I need a "User-Defined Packet Type" character for the two defined packet types of weather data that my code will use. In the interim, I have decided to release the new version with the generic character "{" and provide a configuration parameter to change this once an assignment by the group has been made. If you want more information on the data in the packets, go to

    http://members.sigecom.net/jabennett/wxn/types.htm

The above listed page is not linked to on my site, since it contains preliminary information. The main web site is accessed at the URL under my signature at the bottom of this email. There is also a link on the bottom of the above page.

While the other issues covered in the original two-part message can wait, I feel this one needs attention to avoid problems with any other developer that might be using the generic ID character. Thanks in advance for your help in this matter.

73,
John Bennett
n4xi
http://members.sigecom.net/jabennett/wxn

March 2002

Original source file: aprsspec.0203
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0203

1. [aprsspec] ADMIN: Monthly Message

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Fri, 01 Mar 2002 20:13:07 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-66087-2002.03.01-19.45.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(This message is posted on the APRS SPEC SIG on a monthly basis.)

PURPOSE

The purpose of the APRS SPEC SIG is to provide a forum for folks interested in discussing the APRS protocol specification.

POSTING MESSAGES

To post messages to the APRS SPEC SIG, send email to aprsspec@lists.tapr.org

APRS SPEC SIG RULES

The APRS SPEC SIG has a few simple rules:

. Be courteous. Abusive, insulting, or rude behavior demonstrated towards another list member is a violation of this rule.

. Stick to the subject, i.e., the APRS protocol specification. Subjects that are only tangentially related to the APRS protocol specification (like ³what kind of printer should I buy to print out my copy of the APRS specification?²) may be considered off-topic. If you start a message with ³this is off-topic□² then you are violating this rule.

. Be succinct when composing a message. (The APRS SPEC SIG software has been optioned to limit the length of each message.)

. When quoting a previous message, only quote the parts of that message you are referencing. (The APRS SPEC SIG software has been optioned to limit the length of a quote.)

. Do not send messages in HTML of Rich Text format.

. Do not send attachments.

. Cross-posting is not permitted. (The APRS SPEC SIG software has been optioned to prevent cross-posting.)

. The APRS SPEC SIG administrator reserves the right to suspend or ban any list member who violates these rules.

SUBSCRIPTION MAINTENANCE

You may make changes to your subscription (like change your email address, toggle on/off the digest mode, etc.) by logging into the APRS SPEC SIG at http://www.tapr.org/cgi-bin/lyris.pl

UNSUBSCRIBING

To unsubscribe from the APRS SPEC SIG, follow the directions you will find at the bottom of each message you receive from the APRS SPEC SIG.

QUESTIONS, COMMENTS, ETC.

If you have any questions, comments, etc. concerning the APRS SPEC, please email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] address field in messages/directed queries

From: "Dana H. Myers" <k6jq@arrl.net>
Date: Fri, 15 Mar 2002 09:02:14 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-68665-2002.03.15-11.39.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've seen a few messages that of the form:

:K6JQ-   :message

Where there's a dangling '-' at the the end of the
address. My prototype code enforces AX.25 address rules
rather strictly and considers a dangling dash an error.
What do other implementations of APRS do? Obviously,
there's at least one implementation that's permitting
(what appear to be) ill-formed addresses here.

Dana K6JQ
k6jq@arrl.net

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Re: address field in messages/directed queries

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Fri, 15 Mar 2002 11:25:01 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-68671-2002.03.15-12.00.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dana,

The message addressee does not have to be a valid AX.25 callsign, or even a valid amateur callsign. It can be any 10 character alpha
numeric string. Bulletins are the most common message that is not addressed to a callsign, but specialized services like e-mail and
callbook lookup also use this property.

Good luck!

-James Jefferson KB0THN

PS - Does Lyris *have* to be set to such an incredibly low limit on quoted lines? Darn annoying.

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4. [aprsspec] Re: address field in messages/directed queries

From: Timothy J Salo <tjs@tc.umn.edu>
Date: Fri, 15 Mar 2002 12:28:13 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-68693-2002.03.15-13.01.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Am I correct in believing that no specification of the APRS Internet
data stream exists?

-tjs

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] Re: address field in messages/directed queries

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 15 Mar 2002 14:05:11 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>

Message-ID: <LYR11589-68699-2002.03.15-13.37.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 15 Mar 2002, Dana H. Myers wrote:

> I've seen a few messages that of the form:
>
> :K6JQ-   :message
>
> Where there's a dangling '-' at the the end of the
> address. My prototype code enforces AX.25 address rules
> rather strictly and considers a dangling dash an error.
> What do other implementations of APRS do? Obviously,
> there's at least one implementation that's permitting
> (what appear to be) ill-formed addresses here.

APRS has a 9 character "CALL, ADDRESS, or NAME" field. But only
callsigns or names used over RF have the limitations of the SSID
construct. Objects do not.

In order for an APRS message to be recognized by an ON-AIR TNC using
AX.25, yes, the message TOCALL must be AX.25 compliant.

But I dont immedilately see why such a restriction needs to be enforced on
the message TOFIELD. An example exception is the use of a Bulletin group
of the name AMSAT for example. A bulletin to the bulletin group would be
BLN#AMSAT

Bob

>
> Dana K6JQ
> k6jq@arrl.net
>
>
>
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
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>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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6. [aprsspec] Re: address field in messages/directed queries

From: "James Jefferson" <jjeffers@deskmedia.com>
Date: Fri, 15 Mar 2002 13:10:07 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-68700-2002.03.15-13.42.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Correct. Want to work on it!?!? http://aprsinet.sourceforge.net/

-James Jefferson

> Am I correct in believing that no specification of the APRS Internet
> data stream exists?

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7. [aprsspec] Re: address field in messages/directed queries

From: "Dana H. Myers" <k6jq@arrl.net>
Date: Fri, 15 Mar 2002 13:12:18 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-68747-2002.03.15-15.45.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:

>>>>On Fri, 15 Mar 2002, Dana H. Myers wrote:
>>
>>>>>>>>I've seen a few messages that of the form:
>>>>>>>>>>>>:K6JQ-   :message
>>>>>>>>>>>>Where there's a dangling '-' at the the end of the
>>>>>>>>address.
>>>>
>
>>>>APRS has a 9 character "CALL, ADDRESS, or NAME" field. But only
>>>>callsigns or names used over RF have the limitations of the SSID
>>>>construct. Objects do not.
>>
This is my interpretation of the spec, as well, with perhaps a slight
difference when it comes to "over RF"...

>>>>In order for an APRS message to be recognized by an ON-AIR TNC using
>>>>AX.25, yes, the message TOCALL must be AX.25 compliant.
>>
... I don't limit my thinking to an "on the air TNC" here. If the
address field of the message is ever going to be compared
to an AX.25 address, on the air or not, I believe it needs to be
compliant. I tend to suspect you're saying the same thing but
using the phrase "on the air" to clearly delineate the difference
between an AX-25 address that *could* be used in the address
field of an AX.25 frame and an arbitary 9-character string.

> But I dont immedilately see why such a restriction needs to be enforced on
> the message TOFIELD.

Neither do I. I'm asking about the case of where an address field
is clearly intended for matching against an AX.25 address and
contains a dangling dash. I think it's always clearly an error but
apparently there's at least some software that tolerates it in a
relative safe way.

Thanks!
Dana K6JQ
k6jq@arrl.net

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8. [aprsspec] APRS1.01 document

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 16 Mar 2002 17:00:42 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69022-2002.03.16-16.34.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Is this current, and if there are errata, where do I find them?

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

9. [aprsspec] Re: APRS1.01 document Weather packets

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 16 Mar 2002 20:57:20 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69066-2002.03.16-20.29.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Looking through the spec, trying to determine what sort of weather packets
my new mobile weather thingy should send out..

I see five data type identifiers, !, #, $, * and _
I'm not an Ultimiter or peet, so that leaves me with _ which is
positionless. (you hafta be a big boy to send positions?)

The next paragraph seems to tell me that I could also use !, =, / or @,
(note that ! is used above already, seems ambiguous), but I am not given
any rationale to make a particular choice. They are identified as "position
data type identifiers". A quick scan through the document does not turn up
where these are defined, so I'm still in the dark.

Anyway, proceeding.
Positionless reporting seems a bad idea for a mobile weather station, skip
that.

The next one that pops up, is a "complete weather report with timestamp and
position". It does seem to me, that along with weather observations, it
would be useful to know where, and when those observations were made, so
this looks like a good candidate.

The first format shown is for a "complete weather report with timestamp and
position", lacking a timestamp. (hmm...) Skipped.

The second looks better, in that all the pieces are present.
So:

Field 1: 1 char / or @ (How do I decide?)

Field 2: 7 char, "DHM/HMS" No idea what this means. The example data is
not interpreted, so I'm left with trying to parse "092345z" Does this mean
09:23:45 Zulu? or 9th of the month, 23:45 Zulu?, or some other thing?
If the time is not zulu, then what do I put in place of the Z?
If it always must be zulu, then why is the Z there?
What happened to the slash?

Field 3: 8 char Lat: fine, no problem.

Field 4: 1 char Sym table ID ??? (Does this mean the icon?)

Field 5: 9 char Long: Fine, no problem.

Field 6: Symbol code ???

Field 7: 7 char, wind dir and speed (as opposed to "weather data?")

Field 8: variable, weather data

I assume, though I am not told anywhere, that this is a frame that I build
from the sensors and data I have to send, in the format presented under
"Positionless Weather Data", except that the wind direction and speed were
already done in the previous field, and not required here.

Field 9 1 char APRS software
Field 10 2-4 chars Weather unit

Both of these fields are shown as optional, yet if field 10 is missing,
then how can you parse it? If you have three chars at this point, is is
APRS software and two chars of wx unit, or is it three chars of wx
unit? Bad design here, the two variable length fields should have been
placed together, since I can deterministically locate the end of the
weather data, and the end of the packet.

But it isn't, so what DO I do with these, given that I'm not running any
APRS software, and I'd like to send an "AVR" identifier?

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Re: APRS1.01 document Weather packets

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 16 Mar 2002 21:02:39 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69068-2002.03.16-20.34.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 08:57 PM 3/16/2002 -0500, David VanHorn wrote:

Sorry, that should have been:

>yet if field <9> is missing, then how can you parse it?

--
Dave's Engineering Page: http://www.dvanhorn.org

Got a need to read Bar codes? http://www.barcodechip.com
Bi-directional read of UPC-A, UPC-E, EAN-8, EAN-13, JAN, and Bookland, with
two or five digit supplemental codes, in an 8 pin chip, with NO external parts.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

11. [aprsspec] Re: APRS1.01 document Weather packets

From: David VanHorn <dvanhorn@cedar.net>
Date: Sat, 16 Mar 2002 21:16:29 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69073-2002.03.16-20.48.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 09:09 PM 3/16/2002 -0500, Bob Bruninga wrote:
>For a mobile it is easy. It should be a position weather packet like
>this:
>
>@DDHHMMzLAT/LONG_weatherdata goes here....
>
>This way in a single packet with time stamp you have the position and the
>weather data.. all in only one packet.

Ok, I got that figured, but what about the other parts?

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] Re: APRS1.01 document Weather packets

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 17 Mar 2002 09:33:31 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69186-2002.03.17-09.06.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 16 Mar 2002, David VanHorn asked about a Mobile WX station:

> I see five data type identifiers, !, #, $, * and _

> The next paragraph seems to tell me that I could also use !, =, / or @,
> (note that ! is used above already, seems ambiguous), but I am not given
> any rationale to make a particular choice.

For a mobile it is easy. Use a position weather packet like this:

@DDHHMMzLAT/LONG_weatherdata goes here..../software identifier

This way in a single packet with time stamp you have the position and the
weather data.. all in only one packet. Put an ID on the end to indicate

whatkind of software you are using..

> Field 2: 7 char, "DHM/HMS"

Day hours minutes

> Field 4: 1 char Sym table ID ??? (Does this mean the icon?)

This must be the "/" primary symbol table to get the Weather icon.

> Field 6: Symbol code ???

This must be the "_" Weather Icon

> Field 7: 7 char, wind dir and speed (as opposed to "weather data?")

Wind direction and speed are part of the weather data you want to report.

> Field 8: variable, weather data
> I assume, though I am not told anywhere, that this is a frame that I build
> from the sensors and data I have to send, in the format presented under
> "Positionless Weather Data", except that the wind direction and speed were
> already done in the previous field, and not required here.

Yes.

> Field 9 1 char APRS software Field 10 2-4 chars Weather unit Both of
> these fields are shown as optional, yet if field 10 is missing, then how
> can you parse it?

Doesnt matter. If you dont care about what kind of wx station it is,
then no need to parse that field..

> But it isn't, so what DO I do with these, given that I'm not running any
> APRS software, and I'd like to send an "AVR" identifier?

Maybe use O for other and AVR for the identifier...

de WB4APR@amsat.org, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

13. [aprsspec] Re: APRS1.01 document Weather packets

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 17 Mar 2002 09:34:47 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69187-2002.03.17-09.08.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 16 Mar 2002, David VanHorn wrote:

> >@DDHHMMzLAT/LONG_weatherdata goes here....
> >
> >This way in a single packet with time stamp you have the position and the
> >weather data.. all in only one packet.
>
> Ok, I got that figured, but what about the other parts?

They should be as shown in the spec. I havent looked recently, but it
should be obvious...

de WB4APR@amsat.org, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

14. [aprsspec] Re: APRS1.01 document Weather packets

From: David VanHorn <dvanhorn@cedar.net>
Date: Sun, 17 Mar 2002 12:20:06 -0500

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69213-2002.03.17-11.52.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>They should be as shown in the spec. I havent looked recently, but it
>should be obvious...
>
>de WB4APR@amsat.org, Bob

I agree that it should be obvious, even to someone who does not live and
breathe it.
Unfortunately, it wasn't.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

15. [aprsspec] Re: APRS1.01 document Weather packets

From: David VanHorn <dvanhorn@cedar.net>
Date: Sun, 17 Mar 2002 12:27:25 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69214-2002.03.17-11.59.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> > Field 2: 7 char, "DHM/HMS"
>
>Day hours minutes

What I see, looks like HMS in Zulu time, but that dosen't match the field
description at all.. If the left pair of digits were "31" then it would be
obvious that it's DHM.
But then I am left with confusion over the "DHM/HMS" which implies that I
can use either one. That can't be true though, since you'd have no way to
know how to parse it.

> > Field 7: 7 char, wind dir and speed (as opposed to "weather data?")
>
>Wind direction and speed are part of the weather data you want to report.

Ok, but it's confusing as hell to have them here, and then call out this
second field of "weather data", as if wind speed and direction are not
weather data.

> > Field 9 1 char APRS software Field 10 2-4 chars Weather unit Both of
> > these fields are shown as optional, yet if field 10 is missing, then how
> > can you parse it?
>
>Doesnt matter. If you dont care about what kind of wx station it is,
>then no need to parse that field..
>
> > But it isn't, so what DO I do with these, given that I'm not running any
> > APRS software, and I'd like to send an "AVR" identifier?
>
>Maybe use O for other and AVR for the identifier...

My point though, is that the spec says both fields are optional, meaning
that I may include either, both, or none. Unfortunately, there's no way to
parse that data unless the ninth field is required.   It may be the case
that these two fields are a set, and that I can either leave them both off,
or put them both on, (which makes sense to me) but that's not what the doc
says.

I'm just trying to get an accurate interpretation of the spec, and to point
out areas where it is ambiguous or maybe wrong, so it can be improved.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

16. [aprsspec] Re: APRS1.01 document Weather packets

From: David VanHorn <dvanhorn@cedar.net>
Date: Sun, 17 Mar 2002 12:28:04 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69215-2002.03.17-12.00.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 09:33 AM 3/17/2002 -0500, Bob Bruninga wrote:

> > Field 2: 7 char, "DHM/HMS"
>
>Day hours minutes

What about the "Z"?

--
Dave's Engineering Page: http://www.dvanhorn.org

Got a need to read Bar codes? http://www.barcodechip.com
Bi-directional read of UPC-A, UPC-E, EAN-8, EAN-13, JAN, and Bookland, with
two or five digit supplemental codes, in an 8 pin chip, with NO external parts.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

17. [aprsspec] Re: APRS1.01 document Weather packets

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 17 Mar 2002 13:22:58 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69222-2002.03.17-12.56.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 17 Mar 2002, David VanHorn wrote:

> At 09:33 AM 3/17/2002 -0500, Bob Bruninga wrote:
>
> > > Field 2: 7 char, "DHM/HMS"
> >
> >Day hours minutes
>
> What about the "Z"?

That is the time zone marker for ZULU. It means UTC...

bob

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18. [aprsspec] Re: APRS1.01 document Weather packets

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 17 Mar 2002 13:25:42 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69223-2002.03.17-12.58.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 17 Mar 2002, David VanHorn wrote:

> But then I am left with confusion over the "DHM/HMS" which implies that I
> can use either one. That can't be true though, since you'd have no way to
> know how to parse it.

Its DHM if it ends with a "z" or it is HMS if it ends with an "h"...

> >Wind direction and speed are part of the weather data you want to report.

> Ok, but it's confusing as hell to have them here, and then call out this
> second field of "weather data", as if wind speed and direction are not
> weather data.

All APRS position reports have DIRECTION and SPEED in those fields. For
the Weather stations, it made sense to conserve bytes and use them for
that.

> > > Field 9 1 char APRS software Field 10 2-4 chars Weather unit Both of
> > > these fields are shown as optional, yet if field 10 is missing, then how
> > > can you parse it?

> >Doesnt matter. If you dont care about what kind of wx station it is,
> >then no need to parse that field..

> > > But it isn't, so what DO I do with these, given that I'm not running any
> > > APRS software, and I'd like to send an "AVR" identifier?

> >Maybe use O for other and AVR for the identifier...

> My point though, is that the spec says both fields are optional, meaning
> that I may include either, both, or none. Unfortunately, there's no way to
> parse that data unless the ninth field is required.   It may be the case
> that these two fields are a set, and that I can either leave them both off,
> or put them both on, (which makes sense to me) but that's not what the doc
> says.

Yes. They are optional. But most of us would like to see an identifier
there as to your application so that resulting packets cab be attributed
to the source... Just choose some characters that are unique to your
application as identifiers...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

19. [aprsspec] Re: APRS1.01 document Weather packets

From: David VanHorn <dvanhorn@cedar.net>
Date: Sun, 17 Mar 2002 17:17:37 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69264-2002.03.17-16.49.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 01:22 PM 3/17/2002 -0500, Bob Bruninga wrote:
>On Sun, 17 Mar 2002, David VanHorn wrote:
>
> > But then I am left with confusion over the "DHM/HMS" which implies that I
> > can use either one. That can't be true though, since you'd have no way to
> > know how to parse it.
>
>Its DHM if it ends with a "z" or it is HMS if it ends with an "h"...

Good thing I asked, that's totally non-obvious from the spec!

>All APRS position reports have DIRECTION and SPEED in those fields. For
>the Weather stations, it made sense to conserve bytes and use them for
>that.

Makes sense, I'm just going at it cold, from what the spec says.
I may in fact be moving when I report, but I will un-twist the wind and
give you the same vector as if I was sitting still.

>Yes. They are optional. But most of us would like to see an identifier
>there as to your application so that resulting packets cab be attributed
>to the source... Just choose some characters that are unique to your
>application as identifiers...

No problem, but the spec should say that those two fields are "all or
nothing", otherwise you'll get unparseable frames.

It's also bad juju to parse from both ends.
There's a long story attached to that, which ended up with me finding a bug
in our code that was triggered by a bug in one of Visa's five tandem

non-stop machines. I had to write a program that simulated transactions,
and every concievable randomized error, to prove that it was happening the
way I thought that it could.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

20. [aprsspec] Re: APRS1.01 document Weather packets

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Mon, 18 Mar 2002 07:07:30 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69369-2002.03.18-07.40.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi David,

Remember, too, that in a "full" report (with position), the speed is in
knots. Sections 6 and 7 give the information you are looking for
regarding timestamps, lat/lon format, and the dir/spd extension. Think
of a "full" weather report as a position report with weather data in the
extension and comment fields.

A minimum weather report consists of wind direction, wind speed, wind
gust, and temperature in that order. A positionless weather packet
(which, by the way, may be preferred as then you can use any icon for
your vehicle in the posit) contains "c...s...g...t..." at a minimum
("..." means "not available").

A full weather packet must have a symbol code of "_", a 7 byte APRS
extension of "000/000", and a minimum of "g...t..." Note that a
direction of 000 means that wind speed is ignored (use 360 for North).

Speed in a positionless packet is mph. Speed in a full packet (as with
any posit) is in knots. Gust speed is always mph.

Regarding the APRS software and WX unit info: don't use c, s, g, t, r,
p, P, h, or b as many parsers scan the entire comment field for these
characters. Also, the barometric pressure can be either 4 or 5 digits.
If it is 4 digits, a bp >= 1000.0 mb loses the 1 (1018.1 = 0181, 925.2 =
9252).

Hope this helps.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: David VanHorn [mailto:dvanhorn@cedar.net]
> Posted At: Sunday, March 17, 2002 4:18 PM
> Subject: [aprsspec] Re: APRS1.01 document Weather packets
>
> >All APRS position reports have DIRECTION and SPEED in those
> fields. For
> >the Weather stations, it made sense to conserve bytes and
> use them for
> >that.
>
> Makes sense, I'm just going at it cold, from what the spec says.
> I may in fact be moving when I report, but I will un-twist
> the wind and
> give you the same vector as if I was sitting still.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

21. [aprsspec] Who keeps Destination "Software Version" codes?

From: Jim Wagner <wagnerj@proaxis.com>
Date: Mon, 18 Mar 2002 23:32:46 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69642-2002.03.19-02.05.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello, List -

Who maintains these codes. Who decides when it is time to transistion from
"APZxxx" to a more specific code?

Many thanks,

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM near Corvallis OR, home of
ka7ehk@yahoo.com Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

22. [aprsspec] Re: Who keeps Destination "Software Version" codes?

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 19 Mar 2002 09:25:39 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69689-2002.03.19-08.58.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 18 Mar 2002, Jim Wagner wrote:

> Who maintains these codes. Who decides when it is time to transistion from
> "APZxxx" to a more specific code?

More or less the individual that wants it. Just pick one, and I'll see if
it conflicts with anything existing and then add it to the list.

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

23. [aprsspec] Re: Who keeps Destination "Software Version" codes?

From: Timothy J Salo <tjs@tc.umn.edu>
Date: Tue, 19 Mar 2002 10:54:48 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69701-2002.03.19-11.27.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Date: Tue, 19 Mar 2002 09:25:39 -0500 (EST)
> From: Bob Bruninga <bruninga@usna.edu>
> Subject: [aprsspec] Re: Who keeps Destination "Software Version" codes?
>
> > Who maintains these codes. Who decides when it is time to transistion from
> > "APZxxx" to a more specific code?
>
> More or less the individual that wants it. Just pick one, and I'll see if
> it conflicts with anything existing and then add it to the list.

"The list"???

-tjs

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24. [aprsspec] Re: Who keeps Destination "Software Version" codes?

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 19 Mar 2002 15:50:58 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69731-2002.03.19-15.23.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here is the last revison that I know of... dated Sept 2001:

APRS-WG
Bill Diaz requested APA... for his AFilter applications. Here is the
updated list of TOCALLS. I will assume this is acceptible to everyone
unless there are objections.

In response to the last time we debated this and Mike's comments, it
should be noted that None of these alignments are Exclusive. THey are
simply reservations. If someone else wants to use a subgroup of number
series, then I will try to accomodate. Notice the "etc" in each
category..

This list will be updated in real time as people make Email reservations
when such requests are made public and when there is no conflict. I will
maintain the list and issue periodic copies on the APRSSPEC list when
needed. Official action by the WG is not needed except to resolve
conflicts.

```
 APA A-Filter, Alinco, etc
     APAFxx  AFilter.
     APAGxx  AGATE
     APAXxx  AFilterX.
     APAHxx  AHub
 APB avail
 APC Windows CE, etc
 APD APRSd, etc
 APE avail
 APF avail
 APG Gates, etc
 APH HamHud, etc
 API Icom, etc
     APICQx for ICQ
 APJ JavaAPRS,JeAPRS,etc
 APK Kenwood, etc
     APK0xx THD7's
     APK1xx D700's
 APL Liunx applications
 APM MacAPRS, etc
 APN Network nodes, digis, etc
 APO avail
 APP pocketAPRS, etc
 APQ avail
 APR APR8xx APRSdos,etc
     APRDxx APRSdata, APRSdr
     APRKxx APRStk
    APRS   Generic, digis (obsolete. Digis should use APNxx instead)
     APRXxx APRSmax
     APRTLM used my MIM's and Mic-lites, etc
 APS APRS+SA, etc
 APT TinyTrack
     APTTxx Tiny Track
     APT2xx Tiny Track II
     APTAxx K4ATM's tiny track
     APTV for ATV/APRN and SSTV applications
 APU UIview, etc
     APU1xx UIview 16 bit applications
     APU2xx UIview 32 bit apps
 APV avail
 APW WinAPRS, etc
 APX Xaprs, etc
 APY etc, Yeasu, etc
 APZ Experimental
     APZ0xx Xastir
     APZPAD Smart Palm
```

Due to the limited address space available, we ask that authors be
conservative in their use of their address space and try to accomodate
others desiring to use the same major address block where possible. If
anyone needs a new series and if the subbolock is already in use, then the
WG would suggest that the requester coordinate with the other authors of

that block to arrive at a mutually agreeable arrangement.

Requests for new addresses should be posted on the APRSSPEC list, and in
the absence of any conflicts or contention, these requests will be
accommodated where possible. In the event of conflict, issues will be
resolved by the WG.

WB4APR, Bob

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25. [aprsspec] Request for TOCALL designation

From: Alex <kr1st@amsat.org>
Date: Tue, 19 Mar 2002 19:32:14 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69778-2002.03.19-19.04.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi there,

May I request to reserve the APCYxx TOCALL subgroup for my Cybiko
applications?

Thanks and 73s,
--Alex

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

26. [aprsspec] Re: Request for TOCALL designation

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 19 Mar 2002 19:52:51 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69785-2002.03.19-19.25.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 19 Mar 2002, Alex wrote:

> May I request to reserve the APCYxx TOCALL subgroup for my Cybiko
> applications?

Looks OK to me...
Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

27. [aprsspec] Re: Who keeps Destination "Software Version" codes?

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 20 Mar 2002 08:16:43 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69843-2002.03.20-02.51.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-69731-2002.03.19-15.23.46--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
[snip]
> APU UIview, etc
>   APU1xx UIview 16 bit applications
>   APU2xx UIview 32 bit apps

I would also like to use APU3. (For an unproto terminal that has some
APRS capabilities.)

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

28. [aprsspec] Re: Who keeps Destination "Software Version" codes?

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 20 Mar 2002 09:17:22 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69865-2002.03.20-08.50.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 20 Mar 2002, Roger Barker wrote:

> > APU UIview, etc
> >   APU1xx UIview 16 bit applications
> >   APU2xx UIview 32 bit apps
>
> I would also like to use APU3. (For an unproto terminal that has some
> APRS capabilities.)

OK, Ill add it.
Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

29. [aprsspec] RE: Request for TOCALL designation

From: "Rob Wittner" <rmw@rwa-inc.com>
Date: Wed, 20 Mar 2002 10:25:47 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69874-2002.03.20-09.57.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> APC Windows CE, etc

Well, as long as everyone's cognizant that APCYxx is the Cybiko version and
APC[^Y]xx is the Windows CE version.

I'll be happy to avoid the Y in the fourth character.

Anyone?

   -Rob

-----Original Message-----
From: bounce-aprsspec-11697@lists.tapr.org
[mailto:bounce-aprsspec-11697@lists.tapr.org]On Behalf Of Alex
Sent: Tuesday, March 19, 2002 7:32 PM
To: APRS Spec Discussion List
Subject: [aprsspec] Request for TOCALL designation

Hi there,

May I request to reserve the APCYxx TOCALL subgroup for my Cybiko
applications?

Thanks and 73s,
--Alex

You are currently subscribed to aprsspec as: rmw@rwa-inc.com
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---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

30. [aprsspec] RE: Request for TOCALL designation

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 20 Mar 2002 12:45:50 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69893-2002.03.20-12.19.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 20 Mar 2002, Rob Wittner wrote:

> > APC Windows CE, etc
>
> Well, as long as everyone's cognizant that APCYxx is the Cybiko version and
> APC[^Y]xx is the Windows CE version.
>
> I'll be happy to avoid the Y in the fourth character.

Seems reasonable..

bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

31. [aprsspec] RE: Request for TOCALL designation

From: Keith Sproul <ksproul@rci.rutgers.edu>
Date: Wed, 20 Mar 2002 13:20:44 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Rob Wittner" <rmw@rwa-inc.com>
Message-ID: <LYR11589-69896-2002.03.20-12.54.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I thought APC was totally reserved for Windows CE..

If Rob has a problems with APCY, then I would too..

However, if Rob is using APCExx and Alex uses APCYxx, then I wouldn't
have a problem with it either..

I also don't have a problem with the APUxxx

==========
Hi there,

May I request to reserve the APCYxx TOCALL subgroup for my Cybiko
applications?

Thanks and 73s,
--Alex

In message <LYR26815-69731-2002.03.19-15.23.46--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
[snip]
> APU UIview, etc
>   APU1xx UIview 16 bit applications
>   APU2xx UIview 32 bit apps

I would also like to use APU3. (For an unproto terminal that has some
APRS capabilities.)

==========

> APC Windows CE, etc

Well, as long as everyone's cognizant that APCYxx is the Cybiko version and
APC[^Y]xx is the Windows CE version.

I'll be happy to avoid the Y in the fourth character.

Anyone?

    -Rob

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32. [aprsspec] Re: Who keeps Destination "Software Version" codes?

From: Chuck Byam <cbyam@virginia.edu>
Date: Wed, 20 Mar 2002 21:55:06 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-69947-2002.03.20-21.27.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tuesday 19 March 2002 03:50 pm, Bob Bruninga wrote:
: Here is the last revison that I know of... dated Sept 2001:
<snip>
: APX Xaprs, etc
: APY etc, Yeasu, etc
: APZ Experimental
:   APZ0xx Xastir
:   APZPAD Smart Palm
:

Xastir has been using the APX disignation for about a year now.

Chuck Byam
Xastir project coordinator
http://www.xastir.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

33. [aprsspec] User defined APRS formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 30 Mar 2002 09:41:36 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        Dwight Hazen <hazen@indiana.edu>, James Smith <k9apr@kiva.net>
Message-ID: <LYR11589-71515-2002.03.30-09.14.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 25 Feb 2002, jabennett wrote:

> I need a "User-Defined Packet Type" character for the two defined packet
> types of weather data that my code will use. In the interim, I have
> decided to release the new version with the generic character "{"

I dont think we have a very good list (or I cant find it). Can EVERYONE
that is currently using a user defined format please send in your usage?
Here is the only one I know about:

APRS USER DEFINED DATA FORMATS LIST (26 Mar 2001)

HEADER AUTHOR   DESCRIPTION
------ -------- --
 {Fnn   WB4APR   nn is a 2 byte descriptor of MITEL GPS data formats
 {K1   WB4APR   "K" for Keps and "1" for NASA One line.
 {K2n   WB4APR   For NASA two line elements. "n" is line 1 or 2.
 {{   J Bennet for WX

de WB4APR@amsat.org, Bob

PCsat Design   http://web.usna.navy.mil/~bruninga/pcsat.html
CUBESAT Designs   http://web.usna.navy.mil/~bruninga/cubesat.html
APRS LIVE pages   http://web.usna.navy.mil/~bruninga/aprs.html
APRS SATELLITES   http://web.usna.navy.mil/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
You are currently subscribed to aprssig as: bruninga@usna.edu
To unsubscribe send a blank email to leave-aprssig-20817K@lists.tapr.org

Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

---
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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

34. [aprsspec] Re: User defined APRS formats

From: "jabennett" <jabennett@sigecom.net>
Date: Sun, 31 Mar 2002 22:48:12 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>,
"Dwight Hazen" <hazen@indiana.edu>, "James Smith" <k9apr@kiva.net>
Message-ID: <LYR11589-71720-2002.03.31-23.22.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

W would be OK. X is in my call, Linux, and X (the latter two because I'm
porting to the Linux platform). That's the only reason. If others use the
data, 'W' would probably make more sense.

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "jabennett" <jabennett@sigecom.net>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>; "Dwight Hazen"
<hazen@indiana.edu>; "James Smith" <k9apr@kiva.net>
Sent: Saturday, March 30, 2002 6:59 PM
Subject: Re: [aprsspec] User defined APRS formats

> On Sat, 30 Mar 2002, jabennett wrote:
>
> > If available, I would like to use:
> >
> >   {x1
> >   {x2
>
> Since it is weather, is there any reason why not to use {W ?
> Just an idea...
> bob

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April 2002

Original source file: aprsspec.0204
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0204

1. [aprsspec] Re: User defined APRS formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 1 Apr 2002 10:06:12 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-71775-2002.04.01-09.39.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
> If available, I would like to use:
>
>     {x1
>     {x2

Since it is weather, is there any reason why not to use {W ?
Just an idea...
bob
>
> The data format is currently available on my web site at:
>
>     http://members.sigecom.net/jabennett/wxn/types.htm
>
> There will be a type 3 in the very near future which would be '{x3'


---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

2. [aprsspec] ADMIN: Monthly Reading of the Riot Act

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Tue, 02 Apr 2002 20:47:35 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-71951-2002.04.02-20.21.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
(This message is posted on the APRS SPEC SIG on a monthly basis.)

PURPOSE

The purpose of the APRS SPEC SIG is to provide a forum for folks interested
in discussing the APRS protocol specification.

POSTING MESSAGES

To post messages to the APRS SPEC SIG, send email to aprsspec@lists.tapr.org

APRS SPEC SIG RULES

The APRS SPEC SIG has a few simple rules:

.  Be courteous. Abusive, insulting, or rude behavior demonstrated towards
another list member is a violation of this rule.

.  Stick to the subject, i.e., the APRS protocol specification. Subjects
that are only tangentially related to the APRS protocol specification (like
³what kind of printer should I buy to print out my copy of the APRS
specification?²) may be considered off-topic. If you start a message with
³this is off-topic□² then you are violating this rule.

.  Be succinct when composing a message. (The APRS SPEC SIG software has
been optioned to limit the length of each message.)

.  When quoting a previous message, only quote the parts of that message you
are referencing. (The APRS SPEC SIG software has been optioned to limit the
length of a quote.)

.  Do not send messages in HTML of Rich Text format.

.  Do not send attachments.

.  Cross-posting is not permitted. (The APRS SPEC SIG software has been
optioned to prevent cross-posting.)
```

. The APRS SPEC SIG administrator reserves the right to suspend or ban any
list member who violates these rules.

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You may make changes to your subscription (like change your email address,
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To unsubscribe from the APRS SPEC SIG, follow the directions you will find
at the bottom of each message you receive from the APRS SPEC SIG.

QUESTIONS, COMMENTS, ETC.

If you have any questions, comments, etc. concerning the APRS SPEC, please
email the APRS SPEC SIG administrator at the address below.

Stan Horzepa, WA1LOU, wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] QUERY

From: Jim Wagner <wagnerj@proaxis.com>
Date: Sat, 6 Apr 2002 09:56:26 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-72632-2002.04.06-12.30.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello, List...

I've just started working on query processing for easyAPRS. A clarification
would really help.

The ?IGATE? and ?WX? undirected queries are all described in APRS101.pdf in
the same section with the ?APRS? query. The described format says that a
"target footprint" can be included. The example shows such with the ?APRS?
query but not with the other two. Can the target be expected with ?IGATE?
and ?WX?. I suspect so, but want to make sure.

Many thanks to all...

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com   Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
ka7ehk@yahoo.com   Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

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4. [aprsspec] APRSH Details

From: Jim Wagner <wagnerj@proaxis.com>
Date: Mon, 8 Apr 2002 22:57:54 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73040-2002.04.09-01.31.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello, Spec Discussion Group -

Some details about APRSH would be helpful.

It asks the addressed station to return the number of times the sending
station has been heard in each of the last 8 hours.

(1) Are those hours reckoned from the receiving time or "straight-up clock"
time. That is, if the query is received at 0915 hr, would the most recent
hour begin at 0900 or 0815?

(2) The example in the specs seems to use periods to denote hours with
nothing heard. Why not "0"?

(3) Does this count unique packets or total packets including duplicates
arriving from multiple WIDE sources?

(4) Are multi-digit hour fields allowed?

Many thanks,

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM near Corvallis OR, home of
ka7ehk@yahoo.com Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

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5. [aprsspec] Re: APRSH Details

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 9 Apr 2002 10:17:06 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73059-2002.04.09-09.50.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 8 Apr 2002, Jim Wagner wrote:

> Some details about APRSH would be helpful.
> It asks the addressed station to return the number of times the sending
> station has been heard in each of the last 8 hours.
>
> (1) Are those hours reckoned from the receiving time or "straight-up clock"
> time. That is, if the query is received at 0915 hr, would the most recent
> hour begin at 0900 or 0815?

Per clock hour. starting at 00 minutes each hour.

> (2) The example in the specs seems to use periods to denote hours with
> nothing heard. Why not "0"?

Probably not required. On the APRSdos HEARD screen, it is much easier to
see numbers out of a field of dots compared to numbers out of a sea of
"0"'s

> (3) Does this count unique packets or total packets including duplicates
> arriving from multiple WIDE sources?

Totals including dupes. Gives an idea of channel load from that person.
>
> (4) Are multi-digit hour fields allowed?

Actually, the response is just a string of 8 fields with no labels of the
hours. 1 3 5 . . 6 4 9

is always 8 fields long with the first digit being the present hour...

bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] 2002 Digital BASH at Dayton Hamvention

From: "John R. Ackermann" <jra@febo.com>
Date: Tue, 09 Apr 2002 19:33:35 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73146-2002.04.09-19.07.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Going to the Dayton Hamvention? Then plan to attend the annual Digital*BASH
sponsored by TAPR and the Miami Valley FM Association to be held on Friday,
May 17, 2002!

For reservations, please contact the TAPR office as described below.

What?
        An event for the digitally-inclined ham, featuring:
        * Buffet dinner (Prime Rib, Chicken, and Pasta)
        * Keynote Address (Speaker to be named)
        * TAPR special interest group meetings
        * "Birds of a Feather" gatherings

When?
        Friday evening, May 17, 2002
        Doors open at 7:00 pm; dinner served at 7:30 pm
        Speaker and meetings after dinner

Where?
        Kohler's Banquet Center, 4548 Presidential Way, Kettering
        (39 40.75N, 84 08.43W), about 6 miles SE of downtown Dayton --
        just off of East David Road. Detailed directions and maps are available
        on the TAPR web site (http://www.tapr.org/tapr/html/Fdayton.maps.html)
        or at the TAPR booth.

How?
        Dinner requires advance registration and payment through TAPR.
        Tickets will be available at the TAPR booth on Friday, though
        we strongly encourage registration <before> Hamvention. The cost
        is $25.00 per person, tax and tip included.

        All amateurs are welcome to attend, enjoy the speaker, and
        particpate in the meetings, although only those purchasing a dinner
        can eat.

        To register, contact:
        PACK*BASH
        c/o TAPR
        8987-309 E. Tanque Verde Road #337
        Tucson, AZ   85749-9399

        Phone: 972-671-TAPR (8277)
        Fax: 972-671-8716
        Internet: tapr@tapr.org

        Visa/Mastercard Accepted

Who?
        PACK*BASH is co-sponsored by TAPR -- Tucson Amateur Packet Radio,
        the national leader in digital communication -- and the Miami
        Valley FM Association, Dayton's packet radio club.

For more information (including maps), go to
http://www.tapr.org/tapr/html/dayton.html#packetbash, or send email to
tapr@tapr.org.

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Weather Icons

From: "Curt, WE7U" <archer@eskimo.com>
Date: Thu, 11 Apr 2002 09:40:31 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Curt Mills, WE7U" <hacker@tc.fluke.com>,
        "Curt Mills, WE7U" <archer@eskimo.com>

Message-ID: <LYR11589-73460-2002.04.11-12.14.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Trying from a 2nd address, as the first doesn't appear to have made
it to the list. Sorry if you get two copies of the message.

Curt, WE7U   archer@eskimo.com
Arlington, WA, USA   http://www.eskimo.com/~archer
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

---------- Forwarded message ----------
Date: Thu, 11 Apr 2002 09:07:12 -0700 (PDT)
From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
To: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <archer@eskimo.com>
Subject: Weather Icons

APRS spec, Chapter 12: Weather Reports, page 65 (page 75 in the PDF
file) says this:

  "An APRS Complete Weather Report can contain a timestamp and
  location information, using any of the legal lat/long and
  compressed lat/long position formats described earlier. An APRS
  Object may also have weather information associated with it.

  Examples of report formats are shown below. Note that the Symbol
  Code in every case is the _ (underscore). Also the 7-byte Wind
  Direction and Wind Speed Data Extension replace the cccc and ssss
  fields of a Positionless Weather Report."

So... That pretty much casts in stone that weather reports should
only have _ or /_ symbols (blue or green WX circles). /W and \W
are not allowed by the spec.

In the symbol table though, /W and \W are for National Weather
Service stations, and NWS + overlay.

So, are the \W and /W icons to be used for stations sending Complete
Weather Reports on APRS? If so, the spec text is wrong.

I just tweaked Xastir to only allow _ and /_ for weather stations.
If the NWS icons are intended for use at NWS _as_ weather stations,
then I need to tweak the code some more, and the spec needs to be
corrected as well.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] RE: Weather Icons

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 11 Apr 2002 12:13:36 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73475-2002.04.11-12.47.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Good question. My interpretation has been that NWS stations must send
weather as a positionless packet if they want to send weather. The Fort
Worth, TX NWS station doesn't send weather so it is not an issue here.
Basically, if a station wants to use an icon other than the _ (by the
way, overlays are ok), it must use separate posit and positionless
weather packets.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Curt, WE7U [mailto:archer@eskimo.com]
> Posted At: Thursday, April 11, 2002 11:42 AM
> Subject: [aprsspec] Weather Icons
>
> So, are the \W and /W icons to be used for stations sending Complete
> Weather Reports on APRS? If so, the spec text is wrong.
>
> I just tweaked Xastir to only allow _ and /_ for weather stations.
> If the NWS icons are intended for use at NWS _as_ weather stations,
> then I need to tweak the code some more, and the spec needs to be
> corrected as well.

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

9. [aprsspec] Re: Weather Icons

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 11 Apr 2002 15:57:06 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        "Curt Mills, WE7U" <hacker@tc.fluke.com>
Message-ID: <LYR11589-73488-2002.04.11-15.31.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 11 Apr 2002, Curt, WE7U wrote:

> So, are the \W and /W icons to be used for stations sending Complete
> Weather Reports on APRS? If so, the spec text is wrong.
>
> I just tweaked Xastir to only allow _ and /_ for weather stations.
> If the NWS icons are intended for use at NWS _as_ weather stations,
> then I need to tweak the code some more, and the spec needs to be
> corrected as well.

Yes, I have always accepted /W and \W interchangeably with /_ and _.
thanks for finding the bug in the spec...
Bob

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Re: Weather Icons

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 11 Apr 2002 15:40:37 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73493-2002.04.11-16.14.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

That being the case, how many other software authors besides myself (and
Steve Dimse) have their software set to the spec? Since the spec has
been out for a while, wouldn't it be more prudent (yes, I know you don't
like them) to have the NWS stations that want to transmit weather use
positionless weather packets? Or is the WG willing to modify the spec
and release an update for all authors to follow?

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Thursday, April 11, 2002 2:58 PM
> Subject: [aprsspec] Re: Weather Icons
>
> Yes, I have always accepted /W and \W interchangeably with /_ and _.
> thanks for finding the bug in the spec...
> Bob

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

11. [aprsspec] Re: Weather Icons

From: "Curt, WE7U" <archer@eskimo.com>
Date: Thu, 11 Apr 2002 13:48:52 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
"Curt Mills, WE7U" <hacker@tc.fluke.com>,
"Curt Mills, WE7U" <archer@eskimo.com>
Message-ID: <LYR11589-73495-2002.04.11-16.22.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 11 Apr 2002, Bob Bruninga wrote:

> Yes, I have always accepted /W and \W interchangeably with /_ and _.
> thanks for finding the bug in the spec...

And some small bugs at findu.com: It seems that out of these four
symbols (/W \W /_ _), only some of them are parsed by findu.
>From the message I just saw it may be because Steve wrote the code
with spec in hand, which is what I'm trying to do.

Another bug at findu has to do with reversed table/symbol chars in a
MIC-E packet: They are parsed by findu.com and shouldn't be. With
the TinyTrak-II config software it's easy to make this error and
I've done so. I've seen other people do this as well.

I'm getting quite a collection of bugs, omissions, and duplications
in the spec. Is there any hope of updating it in the future?

Is it time to put the spec on SourceForge so it can be updated in a
reasonable timeframe and the changes tracked? SourceForge is
working well for the Xastir project. It should work just as well for
a spec. Anyone interested in changes to the spec as they occur could
subscribe to a mailing list for just that.

I'll tweak Xastir to allow sending any of the four for weather
reports, but I'll probably bring up a popup warning dialog if they
select NWS icons, just to let the user know what they're really
selecting.

Curt, WE7U archer@eskimo.com
Arlington, WA, USA http://www.eskimo.com/~archer
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] Re: Weather Icons

From: Jim Wagner <wagnerj@proaxis.com>
Date: Thu, 11 Apr 2002 22:23:36 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73593-2002.04.12-00.57.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

easyAPRS will be tweaked to conform to this revelation. I was just working
on weather (coincidence!) so it will be easy.

Jim, KA7EHK

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM near Corvallis OR, home of
ka7ehk@yahoo.com Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

13. [aprsspec] Weather Software Designator

From: "Curt, WE7U" <archer@eskimo.com>
Date: Fri, 12 Apr 2002 15:23:32 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Curt Mills, WE7U" <hacker@tc.fluke.com>,
"Curt Mills, WE7U" <archer@eskimo.com>
Message-ID: <LYR11589-73756-2002.04.12-17.57.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

For Complete Weather Report Format, as it exists in the spec,
there isn't an option for Xastir. What letter should we use
near the end of the weather report to specify the software?

Big 'X' perhaps? Small 'x' is listed as X-APRS (Linux).
Big 'X' could be for "Xastir (MacOS X/Solaris/FreeBSD/Linux)".
Sound reasonable? We're currently sending a 'z' in that slot.

Also, we are sending to APXyyy currently (APX112 in the latest
CVS version). We made the change to 'X' over a year ago, but
haven't seen it in any official lists yet. Can we get this
cast in stone finally?

Thanks,

Curt, WE7U archer@eskimo.com
Arlington, WA, USA http://www.eskimo.com/~archer
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

14. [aprsspec] Re: Weather Software Designator

From: "Curt, WE7U" <archer@eskimo.com>
Date: Fri, 12 Apr 2002 15:47:16 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
"Curt Mills, WE7U" <hacker@tc.fluke.com>
Message-ID: <LYR11589-73759-2002.04.12-18.21.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 12 Apr 2002, Bob Bruninga wrote:

> Sounds good to me.
> THis summer I hope to go through the 1100 emails in my APRSwg folder and
> summarize where we stand...

:-)

Ok: We'll use capital 'X' near the end of the weather reports
and continue to use APXyyy as the destination address.

I'll commit the 'X' change to CVS immediately.

Thanks,

Curt, WE7U archer@eskimo.com
Arlington, WA, USA http://www.eskimo.com/~archer
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

15. [aprsspec] Re: Weather Software Designator

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 12 Apr 2002 19:27:00 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73762-2002.04.12-19.00.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Sounds good to me.
THis summer I hope to go through the 1100 emails in my APRSwg folder and
summarize where we stand...

Bob

On Fri, 12 Apr 2002, Curt, WE7U wrote:

> For Complete Weather Report Format, as it exists in the spec,
> there isn't an option for Xastir. What letter should we use
> near the end of the weather report to specify the software?

> Big 'X' perhaps? Small 'x' is listed as X-APRS (Linux).
> Big 'X' could be for "Xastir (MacOS X/Solaris/FreeBSD/Linux)".
> Sound reasonable? We're currently sending a 'z' in that slot.

> Also, we are sending to APXyyy currently (APX112 in the latest
> CVS version). We made the change to 'X' over a year ago, but
> haven't seen it in any official lists yet. Can we get this
> cast in stone finally?

> Thanks,
> Curt, WE7U   archer@eskimo.com

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

16. [aprsspec] ADMIN: HTML no more

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sat, 13 Apr 2002 12:06:09 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73929-2002.04.13-11.40.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks to a tip I received from Bill, WA7NWP, I was able to configure the
SIG software to automatically reject HTML messages. So, this SIG is now HTML
free!

Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

17. [aprsspec] RE: ADMIN: HTML no more

From: "Kevin Brown" <kbrown@powerhouseproductions.com>
Date: Sat, 13 Apr 2002 13:19:52 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73964-2002.04.13-13.53.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

YAY!

-----Original Message-----
From: bounce-aprsspec-22300@lists.tapr.org
[mailto:bounce-aprsspec-22300@lists.tapr.org] On Behalf Of Stan Horzepa
Sent: Saturday, April 13, 2002 11:06 AM
To: APRS Spec Discussion List
Subject: [aprsspec] ADMIN: HTML no more

Thanks to a tip I received from Bill, WA7NWP, I was able to configure
the SIG software to automatically reject HTML messages. So, this SIG is
now HTML free!

Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as:
kbrown@powerhouseproductions.com To unsubscribe send a blank email to
leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

18. [aprsspec] Re: ADMIN: HTML no more

From: Gerry Creager N5JXS <gerry@cs.tamu.edu>
Date: Sat, 13 Apr 2002 16:29:32 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-73988-2002.04.13-17.03.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In commenting publicly about oone of the few things I like about Lyris,
thank you, Stan, for this.

73, gerry
--
Stan Horzepa wrote:

> Thanks to a tip I received from Bill, WA7NWP, I was able to configure the
> SIG software to automatically reject HTML messages. So, this SIG is now HTML
> free!
>
> Stan, WA1LOU, SIG administrator
>
>
> ---
> You are currently subscribed to aprsspec as: gerry@cs.tamu.edu
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

--
--
Gerry Creager -- gerry@cs.tamu.edu
Network Engineering
Academy for Advanced Telecommunications and Learning Technologies
Texas A&M University   979.458.4020 (Phone) -- 979.847.8578 (Fax)

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

19. [aprsspec] ADMIN: replying to this SIG

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sun, 14 Apr 2002 10:44:25 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74073-2002.04.14-10.18.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

When you reply to a message on this SIG, the SIG software is set up so that
you end up replying to the person that posted the message. Your reply will
not be posted to the SIG unless you Reply-To-All or you add the SIG email
address in the TO: field of your message.

Is this the way you like it? Many other SIGs including two others I
administer are set up to reply to the SIG rather than to the person who
posted the message. Would you prefer this option?

Let me know if you would prefer to reply to the SIG or reply to the person
who posted the message. The majority rules!

73,

Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

20. [aprsspec] Re: ADMIN: replying to this SIG

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 14 Apr 2002 12:00:15 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74085-2002.04.14-11.34.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'd say Change it. A reply to SIG should be the purpose of a SPEC
discussion LIST.
Bob

On Sun, 14 Apr 2002, Stan Horzepa wrote:

> When you reply to a message on this SIG, the SIG software is set up so that
> you end up replying to the person that posted the message. Your reply will
> not be posted to the SIG unless you Reply-To-All or you add the SIG email
> address in the TO: field of your message.

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

21. [aprsspec] Re: ADMIN: replying to this SIG

From: "Fred Moses" <kc8ody@faara.org>
Date: Sun, 14 Apr 2002 12:10:55 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74091-2002.04.14-11.45.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

reply to the list.. everybody share

fred
----- Original Message -----
From: "Stan Horzepa" <stanzepa@earthlink.net>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Sunday, April 14, 2002 10:44
Subject: [aprsspec] ADMIN: replying to this SIG

When you reply to a message on this SIG, the SIG software is set up so that
you end up replying to the person that posted the message. Your reply will
not be posted to the SIG unless you Reply-To-All or you add the SIG email
address in the TO: field of your message.

Is this the way you like it? Many other SIGs including two others I
administer are set up to reply to the SIG rather than to the person who
posted the message. Would you prefer this option?

Let me know if you would prefer to reply to the SIG or reply to the person
who posted the message. The majority rules!

73,

Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: kc8ody@faara.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

22. [aprsspec] Re: ADMIN: replying to this SIG

From: Rick Holbert <rholbert@fastmail.fm>
Date: Sun, 14 Apr 2002 15:31:49 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74126-2002.04.14-15.04.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

My vote is for it to reply to the SIG.

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

23. [aprsspec] Re: ADMIN: replying to this SIG

From: "Dana H. Myers" <k6jq@arrl.net>
Date: Sun, 14 Apr 2002 12:57:08 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-74134-2002.04.14-15.31.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've seen far too many examples of where someone meant to reply
personally to someone but it was sent to an entire list to think
it's *ever* a good idea to default to 'reply-all'. The potential
for damage grossly outweighs the normal benefit.

If person A writes to the list and person B replies, but only to
person A, it's easy enough for person A to privately write
person B and suggest the message be forwarded to the list.

Dana K6JQ
k6jq@arrl.net

Stan Horzepa wrote:

>Let me know if you would prefer to reply to the SIG or reply to the person
>who posted the message. The majority rules!
>

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

24. [aprsspec] Re: ADMIN: replying to this SIG

From: KC7ZRU - Tate <kc7zru@arrl.net>
Date: Sun, 14 Apr 2002 14:35:22 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74141-2002.04.14-16.09.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Reply to all - personal accountability and shared discussion outweigh
the potential for folks that don't yet know how to control their news
clients.

Everyone's gotta learn - sometimes with an embarassing motivator. And
the manouvers required to purposely direct a message are minimal.

73

"Dana H. Myers" wrote:
>
> The potential
> for damage grossly outweighs the normal benefit.
>

--
              Casper, WY | CARC Repeater
                DN62tt | 146.940
        "The Dungeon" online at http://go.to/kc7zru
            "RTFM" is NOT a 'four letter' word!

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

25. [aprsspec] ADMIN: Survey

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sun, 14 Apr 2002 18:12:49 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74162-2002.04.14-17.47.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I will keep accepting survey responses until they dwindle to nothing or
less. By the way, you can send your survey responses directly to me rather
than the SIG.

Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

26. [aprsspec] ADMIN: reply survey results

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Wed, 17 Apr 2002 20:09:58 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74800-2002.04.17-20.29.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The response to the ³reply survey² has trickled down to less than none, so
the survey is now closed and the results are, as follows:

By a 2:1 margin, the folks responding to the survey prefer that replies go
to the list. Therefore, I will change the settings of APRSSPEC, APRSSIG, and
HTAPRS to reflect the results of the survey immediately..

By the way, the other TAPR SIGs I administer (APRSSAT and MIC-E) already
send replies to the list.

Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

27. [aprsspec] Duplicate Query Criterion?

From: Jim Wagner <wagnerj@proaxis.com>
Date: Thu, 18 Apr 2002 07:25:31 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74911-2002.04.18-09.59.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello, List ...

I've just come to the realization that query response is more complex than
it might first seem. There are all of those duplicate packets arriving by
different digi paths. You don't want to respond to every one, yet you do
want to respond to a valid repeat query from the same station.

So, what criterion is used to distinguish between multiple packets arriving
by different paths and a repeat query? Time? If so, how long? 1 minute? 2?
5?

Many thanks to all of you...

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com   Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
ka7ehk@yahoo.com   Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

28. [aprsspec] Re: Duplicate Query Criterion?

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 18 Apr 2002 10:40:48 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-74933-2002.04.18-10.17.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 18 Apr 2002, Jim Wagner wrote:

> So, what criterion is used to distinguish between multiple [queries]
> arriving by different paths and a repeat query? Time? If so, how long? 1
> minute? 2? 5?

Since a QUERY sets a random 2 minute random number timer in all
respondents, then any multiple queries within that window only just
regeenerate the random transmit time and so there are no additional
responses generated unless the random response has a;lready responded.

That is how the QUERY resposne system was designed. I have no idea if all
client software implemtented it properly.

But since a QUERY tells everyone to respond, then we sure want to minimize
those. I would say only once every 3 to 5 minteus would be about right.
what woiuld be ideal (but I didnt do it) wouild be to for the clients to
then respons as above, but then OBSERVE if they in fact were digipeated.
If they were, then they should not respond again for say 5 minutes ... but
if they did not hear themeselves then they shoulld be armed to respond
immediatly to the next query o rsomething like that...

bob

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

29. [aprsspec] Re: Duplicate Query Criterion?

From: "Wes Johnston" <kd4rdb@netzero.com>
Date: Thu, 18 Apr 2002 17:17:35 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75036-2002.04.18-16.53.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Don't most widen-n digi's assume a dupe time of 30 seconds? Ie, you can't
send the same packet twice in less than 30 seconds. So IMHO, all queries
from a given station should arrive within 30 seconds of one another. Any
greater than that, consider it two queries.

Wes

----- Original Message -----
From: "Jim Wagner" <wagnerj@proaxis.com>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Thursday, April 18, 2002 10:25 AM
Subject: [aprsspec] Duplicate Query Criterion?

> Hello, List ...
>
> I've just come to the realization that query response is more complex than
> it might first seem. There are all of those duplicate packets arriving by
> different digi paths. You don't want to respond to every one, yet you do
> want to respond to a valid repeat query from the same station.
>
> So, what criterion is used to distinguish between multiple packets
arriving
> by different paths and a repeat query? Time? If so, how long? 1 minute? 2?
> 5?
>

> Many thanks to all of you...
>
> Jim Wagner
> Oregon Research Electronics
> ---
> wagnerj@proaxis.com   Tangent, Oregon 97389
> KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
> ka7ehk@yahoo.com   Oregon State University
> ---
> A computer without Windows is like a cake without mustard. - anonymous
>
>
>
>
> ---
> You are currently subscribed to aprsspec as: kd4rdb@netzero.com
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>
>

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

30. [aprsspec] Re: Duplicate Query Criterion?

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 18 Apr 2002 18:02:41 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75055-2002.04.18-17.37.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 18 Apr 2002, Wes Johnston wrote:

> Don't most widen-n digi's assume a dupe time of 30 seconds? Ie, you can't
> send the same packet twice in less than 30 seconds. So IMHO, all queries
> from a given station should arrive within 30 seconds of one another. Any
> greater than that, consider it two queries.

But if every station on frequency responds the first time (how many
hundred is that?) do we really want those same hundreds of TNC's all
responding to another QUERY only 30 seconds later? I strongly think not.

The original APRSdos defined the query response window to be 2 minutes or
longer..

Bob

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

31. [aprsspec] Re: ADMIN: replying to this SIG

From: Jeff King <jeff@aerodata.net>
Date: Sat, 20 Apr 2002 19:22:37 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75439-2002.04.20-18.53.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Look like I am not to late yet for this one...

reply should go to the sender, reply all should go to the sender and the SIG.
In other words, just like it is now.

See the outrage on the other list if you need reasons.

-Jeff

P.S. A few of you voting for the default reply to go to the public SIG better
think about what you are asking for as I see some of you on APRSSIG
complaining about this very change you seem to be asking for here.

On Sun, 14 Apr 2002 10:44:25 -0400, Stan Horzepa wrote:
>When you reply to a message on this SIG, the SIG software is set up
>so that
>you end up replying to the person that posted the message. Your
>reply will
>not be posted to the SIG unless you Reply-To-All or you add the SIG
>email
>address in the TO: field of your message.

>Is this the way you like it? Many other SIGs including two others I
>administer are set up to reply to the SIG rather than to the person
>who
>posted the message. Would you prefer this option?

>Let me know if you would prefer to reply to the SIG or reply to the
>person
>who posted the message. The majority rules!

>73,
>
>Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

32. [aprsspec] Re: ADMIN: replying to this SIG

From: "Patrick Karp" <pkarp@conwaycorp.net>
Date: Sat, 20 Apr 2002 21:45:11 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75463-2002.04.20-22.22.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hmmm it looks to me like right now it does not matter if you reply or
reply all it still goes to the same address. To tell you the truth I
always thought Reply All meant to sent to you whole mailing list so I
never used it. hehe   But to play it save I still say us the Reply to
send to the list.   If the topic gets off subject or personal then you
can use the personal email address. Other wise I think others might
be able to learn from discussions that list members have on the list!
----- Original Message -----
From: "Jeff King" <jeff@aerodata.net>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Sent: Saturday, April 20, 2002 6:22 PM
Subject: [aprsspec] Re: ADMIN: replying to this SIG

Look like I am not to late yet for this one...

reply should go to the sender, reply all should go to the sender and
the SIG.
In other words, just like it is now.

See the outrage on the other list if you need reasons.

-Jeff

P.S. A few of you voting for the default reply to go to the public SIG
better
think about what you are asking for as I see some of you on APRSSIG
complaining about this very change you seem to be asking for here.

On Sun, 14 Apr 2002 10:44:25 -0400, Stan Horzepa wrote:
>When you reply to a message on this SIG, the SIG software is set up
>so that
>you end up replying to the person that posted the message. Your
>reply will
>not be posted to the SIG unless you Reply-To-All or you add the SIG
>email

>address in the TO: field of your message.

>Is this the way you like it? Many other SIGs including two others I
>administer are set up to reply to the SIG rather than to the person
>who
>posted the message. Would you prefer this option?

>Let me know if you would prefer to reply to the SIG or reply to the
>person
>who posted the message. The majority rules!

>73,
>
>Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: pkarp@conwaycorp.net
To unsubscribe send a blank email to
leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator:
wa1lou@tapr.org

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

33. [aprsspec] Re: ADMIN: replying to this SIG

From: "Patrick Karp" <pkarp@conwaycorp.net>
Date: Sat, 20 Apr 2002 22:01:43 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75468-2002.04.20-22.38.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

LOL I used the reply all and got a message back stating that my
message was not posted because the first line was identical to another
one of my recent post. The reason for this is that by using reply
all, I was accually sending the message three times to the same
address. hehe I guess I was right all along to avoid using the reply
all. I'm sure I can change settings someplace to fix this problem.
But whatever settings I'm using are default. So I believe it is
best to use the simply reply button to post messages to this SIG.

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

34. [aprsspec] ADMIN: Reply and Reply To All

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sun, 21 Apr 2002 09:59:20 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75569-2002.04.21-09.34.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

After experimenting with various combinations of SIG software settings, it
is evident that the SIG software cannot be set up to reply to the SIG
without losing the convenience of replying to the original author of a
message. Therefore, the SIG software is now set up to perform as follows:

REPLY sends your reply to the originator of the message

REPLY TO ALL sends your reply to the SIG and the originator of the message

Note that I provide no guarantees how these settings will interact with the
settings of your email software. However, I believe that this combination of
settings will work correctly with most email software.

I appreciate your patience during the past week as I experimented with the

SIG software. There is no way to experiment off-line, so you all were guinea
pigs during these experiments. I apologize for that.

I consider this matter closed and off-topic on the SIG. If you wish to
discuss this matter with me further, please do so directly and spare the
SIG.

Thanks for your cooperation,

Stan, WA1LOU, SIG administrator

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

35. [aprsspec] APRSO Object/Item?

From: Jim Wagner <wagnerj@proaxis.com>
Date: Mon, 22 Apr 2002 22:22:19 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75905-2002.04.23-00.56.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello, Group -

For the purposes of an ?APRSO query, does a station with an item respond?

Many thanks,

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM near Corvallis OR, home of
ka7ehk@yahoo.com Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

36. [aprsspec] Re: APRSO Object/Item?

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 23 Apr 2002 08:47:51 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-75942-2002.04.23-08.22.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 22 Apr 2002, Jim Wagner wrote:

> For the purposes of an ?APRSO query, does a station with an item respond?

I would think so.
de WB4APR, Bob

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

37. [aprsspec] Digital BASH Update

From: John Ackermann N8UR <jra@febo.com>
Date: Wed, 24 Apr 2002 11:21:33 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-76151-2002.04.24-10.56.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

We're very happy to announce that Bdale Garbe, KB0G, will be the keynote
speaker at the TAPR/MVFMA Digital BASH on Friday evening at Hamvention.

Bdale is one of the long-time "good guys" in the digital radio and amateur satellite worlds. He was in the middle of the early work on KA9Q's "NET" and "NOS" programs, pioneered megabit-rate packet radio, and in the satellite world was heavily involved in the RUDAK and AO-40 GPS experiments. Back in the Old Days, he was a board member and Vice President of TAPR, and remains one of TAPR's best friends. On a different front, Bdale was just elected as Debian Project Leader, so he now oversees one of the major Linux distributions -- and the one that is by far the most ham-friendly. Bdale works in the Linux development group at HP, and in his spare (?) time does VHF/UHF/microwave contesting and roaming.

Bdale's talk will blend all of these interests into an entertaining and informative presentation titled "From Bits in the Basement to Debian -- and Back Again".

You can find more information about the Digital BASH and TAPR's other Hamvention activities at http://www.tapr.org/tapr/dayton/.

See you there!

73,
John

John Ackermann   N8UR   jra@febo.com   http://www.febo.com
President, TAPR   n8ur@tapr.org   http://www.tapr.org

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

38. [aprsspec] Fwd: Your confirmation is needed (ok 11588)

From: Keith Sproul <ksproul@vger.rutgers.edu>
Date: Fri, 26 Apr 2002 07:28:24 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-76625-2002.04.26-07.04.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Either someone tried to un-subscribe me from this list, or this
stupid KLEZ virus caused this...

I am more inclined to belive that it was the virus, but if someone
actually did try, I would be very upset..

Keith Sproul

>X-Lyris-Type: unsub-conf-req
>From: Lyris <unsubscribe-confirm@lists.tapr.org>
>Reply-To: Lyris <unsubscribe-confirm@lists.tapr.org>
>To: ksproul@vger.rutgers.edu
>Subject: Your confirmation is needed (ok 11588)
>Date: Fri, 26 Apr 2002 06:40:40 -0600
>
>Your email address 'ksproul@vger.rutgers.edu' has been submitted to be
>unsubscribed from the 'aprsspec' mailing list.
>
>This unsubscribe command requires your confirmation that you want to be
>unsubscribed.
>
>To confirm that you do want to unsubscribe, reply to this message so that
>the words "ok 11588" appear somewhere on the subject line.
>
>Make sure that your reply message is addressed to
>unsubscribe-confirm@lists.tapr.org
>
>You will receive notification that your confirmation has been received, and
>that you have been unsubscribed.
>
>If you do not want to unsubscribe, do nothing. You will be kept on the
>mailing list.
>
>---

```
--
Keith Sproul                    Ham Radio WU2Z
ksproul@vger.rutgers.edu        732 821-4828

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

39. [aprsspec] RE: Fwd: Your confirmation is needed (ok 11588)

```
From: Dan <starkfolks@comcast.net>
Date: Fri, 26 Apr 2002 08:31:56 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-76641-2002.04.26-09.03.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

Some how I am receiving APRS bulletins... When I have unsubscribe...

Can someone unsubscribe me?

```
-----Original Message-----
From:   Keith Sproul [SMTP:ksproul@vger.rutgers.edu]
Sent:   Friday, April 26, 2002 6:28 AM
To:     APRS Spec Discussion List
Subject:        [aprsspec] Fwd: Your confirmation is needed (ok 11588)

Either someone tried to un-subscribe me from this list, or this
stupid KLEZ virus caused this...

I am more inclined to belive that it was the virus, but if someone
actually did try, I would be very upset..

Keith Sproul




>X-Lyris-Type: unsub-conf-req
>From: Lyris <unsubscribe-confirm@lists.tapr.org>
>Reply-To: Lyris <unsubscribe-confirm@lists.tapr.org>
>To: ksproul@vger.rutgers.edu
>Subject: Your confirmation is needed (ok 11588)
>Date: Fri, 26 Apr 2002 06:40:40 -0600
>
>Your email address 'ksproul@vger.rutgers.edu' has been submitted to be
>unsubscribed from the 'aprsspec' mailing list.
>
>This unsubscribe command requires your confirmation that you want to be
>unsubscribed.
>
>To confirm that you do want to unsubscribe, reply to this message so that
>the words "ok 11588" appear somewhere on the subject line.
>
>Make sure that your reply message is addressed to
>unsubscribe-confirm@lists.tapr.org
>
>You will receive notification that your confirmation has been received, and
>that you have been unsubscribed.
>
>If you do not want to unsubscribe, do nothing.  You will be kept on the
>mailing list.
>
>---

--
Keith Sproul                    Ham Radio WU2Z
ksproul@vger.rutgers.edu        732 821-4828

---
You are currently subscribed to aprsspec as: starkfolks@comcast.net
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org


---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

40. [aprsspec] Re: Your confirmation is needed (ok 11588)

From: KC7ZRU - Tate <kc7zru@arrl.net>
Date: Fri, 26 Apr 2002 15:10:29 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-76706-2002.04.26-16.44.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Please read the very last paragraph at the bottom of this message for
unsubscribe instructions

Dan wrote:
>
> Some how I am receiving APRS bulletins... When I have unsubscribe...
>
> Can someone unsubscribe me?
>

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

41. [aprsspec] Object Timestamp optional?

From: Jim Wagner <wagnerj@proaxis.com>
Date: Fri, 26 Apr 2002 22:44:58 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-76760-2002.04.27-01.19.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello List...

On page 57, near the beginning of the chapter on Objects and Items, it the
spec says:

"Object Reports specify an Object's position, can have an optional
timestamp, ..."

On page 58, the spec says, just above the format diagram, "An Object always
has a timestamp".

Could someone enlighten me as to which is correct?

Thanks to you all,

Jim Wagner
Oregon Research Electronics
----
wagnerj@proaxis.com   Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
ka7ehk@yahoo.com   Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

42. [aprsspec] Re: Object Timestamp optional?

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 27 Apr 2002 09:22:07 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-76792-2002.04.27-08.56.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 26 Apr 2002, Jim Wagner wrote:

> On page 57, near the beginning of the chapter on Objects and Items, it the
> spec says:
>
> "Object Reports specify an Object's position, can have an optional
> timestamp, ..."

That line is incorrect for an APRS OBJECT. But for the use of the generic
term "object" which is somthing on an APRS map, then it can be an ITEM
which is the same thing without a timestamp.
Bob

>
> On page 58, the spec says, just above the format diagram, "An Object always
> has a timestamp".
>
> Could someone enlighten me as to which is correct?
>
> Thanks to you all,
>
>
> Jim Wagner
> Oregon Research Electronics
> ---
> wagnerj@proaxis.com   Tangent, Oregon 97389
> KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
> ka7ehk@yahoo.com   Oregon State University
> ---
> A computer without Windows is like a cake without mustard. - anonymous
>
>
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

May 2002

Original source file: aprsspec.0205
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0205

1. [aprsspec] Spring _Packet_Status_Register_ Available Online

From: "John R. Ackermann" <jra@febo.com>
Date: Thu, 02 May 2002 20:26:04 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-77567-2002.05.02-20.11.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As the subject says... the new issue of TAPR's journal, the
_Packet_Status_Register_, is now available online. You can go to
http://www.tapr.org/tapr/html/Fpsr.html, or obtain it via ftp from
ftp://ftp.tapr.org/psr/Spring_83_2002.pdf. You'll need Adobe Acrobat or
other PDF file reader to view the document.

Stan Horzepa, WA1LOU, has taken the reins as the PSR's editor, and I'd like
to thank him for his great work on this issue. Please send comments,
suggestions, or -- best of all -- articles to Stan at psr@tapr.org.

73,
John N8UR

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] Example correct?

From: Jim Wagner <wagnerj@proaxis.com>
Date: Sat, 4 May 2002 21:41:03 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-77857-2002.05.05-00.15.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Spec Discussion List -

On page 61 of the spec, there is an example of a corridor which is as follows:

;FLIGHTPTH*4903.50N\07201.75Wl610/310{100}

Now, I hope I am interpreting things correctly, and it appears from the
leading character (";") that this is an object. Objects are stated to
require a time-stamp. This example does not appear to have a time-stamp.

Perhaps it was intended to be an item? That would change the leading
character to ")", I think. Either that, or a time-stamp should be added?

If someone else could confirm the analysis or explain why there is no
problem, it would be greatly appreciated.

Many thanks,

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com   Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
ka7ehk@yahoo.com   Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Re: Example correct?

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 5 May 2002 09:36:32 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>

Message-ID: <LYR11589-77876-2002.05.05-09.13.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I agree. This is not right. It either needs to be an Item or it needs a
time stamp...

bob

On Sat, 4 May 2002, Jim Wagner wrote:

> Hello Spec Discussion List -
>
> On page 61 of the spec, there is an example of a corridor which is as follows:
>
> ;FLIGHTPTH*4903.50N\07201.75Wl610/310{100}
>
> Now, I hope I am interpreting things correctly, and it appears from the
> leading character (";") that this is an object. Objects are stated to
> require a time-stamp. This example does not appear to have a time-stamp.
>
> Perhaps it was intended to be an item? That would change the leading
> character to ")", I think. Either that, or a time-stamp should be added?
>
> If someone else could confirm the analysis or explain why there is no
> problem, it would be greatly appreciated.
>
> Many thanks,
>
> Jim Wagner
> Oregon Research Electronics
> ---
> wagnerj@proaxis.com   Tangent, Oregon 97389
> KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
> ka7ehk@yahoo.com   Oregon State University
> ---
> A computer without Windows is like a cake without mustard. - anonymous
>
>
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

4. [aprsspec] Re: Example correct?

From: "Cap Pennell" <cap@cruzio.com>
Date: Sun, 5 May 2002 08:51:26 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-77884-2002.05.05-11.26.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I assume (and hope) this item _has_ now been added to _the list_ of tasks
that faces the working group in their eventual production of the next
version of the APRS Protocol. Bob, you're still maintaining that list
aren't you? Is anybody else helping to maintain a copy of that list?
73, Cap KE6AFE

> -----Original Message-----
> From: bounce-aprsspec-11639@lists.tapr.org
> [mailto:bounce-aprsspec-11639@lists.tapr.org] On Behalf Of Bob Bruninga
> Sent: Sunday, May 05, 2002 6:37 AM
> To: APRS Spec Discussion List
> Subject: [aprsspec] Re: Example correct?

>
>
> I agree. This is not right. It either needs to be an Item or it needs a
> time stamp...
>
> bob
>
> On Sat, 4 May 2002, Jim Wagner wrote:
>
> > Hello Spec Discussion List -
> >
> > On page 61 of the spec, there is an example of a corridor which
> is as follows:
> >
> > ;FLIGHTPTH*4903.50N\07201.75Wl610/310{100}
> >
> > Now, I hope I am interpreting things correctly, and it appears from the
> > leading character (";") that this is an object. Objects are stated to
> > require a time-stamp. This example does not appear to have a time-stamp.
> >
> > Perhaps it was intended to be an item? That would change the leading
> > character to ")", I think. Either that, or a time-stamp should be added?
> >
> > If someone else could confirm the analysis or explain why there is no
> > problem, it would be greatly appreciated.
> >
> > Many thanks,
> >
> > Jim Wagner

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] question

From: "Ben Stienstra" <bennys@xs4all.nl>
Date: Mon, 6 May 2002 10:20:06 +0200 (CEST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-77973-2002.05.06-03.54.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Group,
Is APRS protocol Specification Version 1.0.1 still the most recent one?

73's,
Ben Stienstra
PD2BS

--
mobile: +31-6-41218765
home: +31-10-5902257

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Area objects?

From: Jim Wagner <wagnerj@proaxis.com>
Date: Wed, 15 May 2002 22:43:30 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-79320-2002.05.16-01.19.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello, Spec List -

I have some rather practical questions about area objects.

(1) What is the orientation of the triangle(s) within the area rectangle? I
would assume that the base is coincident with the south edge of the box and
the apex opposite the base is at the center of the north edge. But, there
are many (infinite?) number of other possible orientations. Can someone

specify what the expected orientation is?

(2) What is the color of an unfilled object? Is it specified by the object
color number or does that apply only to fill?

(3) In the case of filled objects, is there a contrasting outline around
the outer edge of the object or does the color go right out to the vertical
and horizontal extent of the object?

(4) In the color descriptions, does "low intensity" mean dark or does it
mean transparent? If one applies a numeric range of 0 to 255 to each color
component (a common convention), would "high intensity" red correspond to
(r,g,b) = (255,0,0) and "low intensity" red correspond to (r,g,b) =
(128,0,0)?

(5) What is the distinction between high intensity gray and low intensity
black?
For that matter, how can one have "low intensity black" if black is the
absence of any color components (that is, r,g,b = 0,0,0)?

(6) In the case of a corridor, does the corridor form a true diagonal
rectangle and thus, extend outside of the extent box at each end? Or, is
the corridor trimmed at the edges of the extent box such that the corridor
is pointed at each end?

Many thanks to everyone...

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM near Corvallis OR, home of
ka7ehk@yahoo.com Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Another Area Object Question

From: Jim Wagner <wagnerj@proaxis.com>
Date: Wed, 15 May 2002 22:51:20 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-79321-2002.05.16-01.27.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello, List -

Sorry to add another to an already long list of questions, but...

(7) How is a circle fitted into an extent box if the specified extent box
is not square? Is it sized as the largest circle to fit the box and then
"justified" to the top and left edges of the box?

Again, many thanks....

Jim Wagner
Oregon Research Electronics
---
wagnerj@proaxis.com Tangent, Oregon 97389
KA7EHK@KC7KFE.OR.USA.NOAM near Corvallis OR, home of
ka7ehk@yahoo.com Oregon State University

A computer without Windows is like a cake without mustard. - anonymous

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8. [aprsspec] Re: Area objects?

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 20 May 2002 08:42:00 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-79847-2002.05.20-08.17.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 15 May 2002, Jim Wagner wrote:

> (1) What is the orientation of the triangle(s) within the area rectangle? I
> would assume that the base is coincident with the south edge of the box and
> the apex opposite the base is at the center of the north edge. But, there
> are many (infinite?) number of other possible orientations. Can someone
> specify what the expected orientation is?

It is an isosoleces trinagle with the diagonal of the BOX being the right
side.
>
> (2) What is the color of an unfilled object? Is it specified by the object
> color number or does that apply only to fill?

Yes

>
> (3) In the case of filled objects, is there a contrasting outline around
> the outer edge of the object or does the color go right out to the vertical
> and horizontal extent of the object?

Probably your choice. APRSdos makes them the same.
>
> (4) In the color descriptions, does "low intensity" mean dark or does it
> mean transparent? If one applies a numeric range of 0 to 255 to each color
> component (a common convention), would "high intensity" red correspond to
> (r,g,b) = (255,0,0) and "low intensity" red correspond to (r,g,b) =
> (128,0,0)?

Its the original 16 colors of EGA. I donno any more...
>
> (5) What is the distinction between high intensity gray and low intensity
> black?
> For that matter, how can one have "low intensity black" if black is the
> absence of any color components (that is, r,g,b = 0,0,0)?
>
> (6) In the case of a corridor, does the corridor form a true diagonal
> rectangle and thus, extend outside of the extent box at each end? Or, is
> the corridor trimmed at the edges of the extent box such that the corridor
> is pointed at each end?

It is a full wide corridor so it is a slanted rectangle...

Bob
>
> Many thanks to everyone...
>
>
>
> Jim Wagner
> Oregon Research Electronics
> ---
> wagnerj@proaxis.com   Tangent, Oregon 97389
> KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
> ka7ehk@yahoo.com   Oregon State University
> ---
> A computer without Windows is like a cake without mustard. - anonymous
>
>
>
>
> ---
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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9. [aprsspec] Re: Another Area Object Question

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 20 May 2002 08:46:34 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-79848-2002.05.20-08.22.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 15 May 2002, Jim Wagner wrote:

> Hello, List -
>
> Sorry to add another to an already long list of questions, but...
>
> (7) How is a circle fitted into an extent box if the specified extent box
> is not square? Is it sized as the largest circle to fit the box and then
> "justified" to the top and left edges of the box?

good question. In APRSdos, the starting point defines the northern
boundary line. The second point defines the CENTER. The radius is the
vertical distance.

I nvere noticed this u ntil you just asked, because I always click and
drag at a 45 degrree angle... So I tested it and the above is what I got.

Ignore typos...

bob
>
> Again, many thanks.... >
>
> Jim Wagner
> Oregon Research Electronics
> ---
> wagnerj@proaxis.com   Tangent, Oregon 97389
> KA7EHK@KC7KFE.OR.USA.NOAM   near Corvallis OR, home of
> ka7ehk@yahoo.com   Oregon State University
> ---
> A computer without Windows is like a cake without mustard. - anonymous
>
>
>
>
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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10. [aprsspec] APRS TOCALLS (May 2002)

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 21 May 2002 08:58:01 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-80152-2002.05.21-08.33.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I think this is the latest LIST of APRS TOCALLS that I have. I have added two additions if there are no objections:

    APDTxx for APRS touch tone (DTMF)
    APOxx for APRSpoint

This list will be updated in real time as people make Email reservations when such requests are made public and when there is no conflict. I will maintain the list and issue periodic copies on the APRSSPEC list when needed. Official action by the WG is not needed except to resolve conflicts.

> APA A-Filter, Alinco, etc
>   APAFxx AFilter.
>   APAGxx AGATE
>   APAXxx AFilterX.
>   APAHxx AHub
> APB avail
> APC Windows CE, etc
> APD APRSd, etc
      APDTxx APRStouch Tone (DTMF)
> APE avail
> APF avail
> APG Gates, etc
> APH HamHud, etc
> API Icom, etc
>   APICQx for ICQ
> APJ JavaAPRS,JeAPRS,etc
> APK Kenwood, etc
>   APK0xx THD7's
>   APK1xx D700's
> APL Liunx applications
> APM MacAPRS, etc
> APN Network nodes, digis, etc
> APO APRSpoint
> APP pocketAPRS, etc
> APQ avail
> APR APR8xx APRSdos,etc
>   APRDxx APRSdata, APRSdr
>   APRKxx APRStk
>   APRS   Generic, digis (obsolete. Digis should use APNxx instead)
>   APRXxx APRSmax
>   APRTLM used my MIM's and Mic-lites, etc
> APS APRS+SA, etc
> APT TinyTrack
>   APTTxx Tiny Track
>   APT2xx Tiny Track II
>   APTAxx K4ATM's tiny track
>   APTV for ATV/APRN and SSTV applications
> APU UIview, etc
>   APU1xx UIview 16 bit applications
>   APU2xx UIview 32 bit apps
> APV avail
> APW WinAPRS, etc
> APX Xaprs, etc
> APY etc, Yeasu, etc
> APZ Experimental
>   APZ0xx Xastir
>   APZPAD Smart Palm

Due to the limited address space available, we ask that authors be conservative in their use of their address space and try to accomodate others desiring to use the same major address block where possible. If anyone needs a new series and if the subbolock is already in use, then the WG would suggest that the requester coordinate with the other authors of that block to arrive at a mutually agreeable arrangement.

Requests for new addresses should be posted on the APRSSPEC list, and in the absence of any conflicts or contention, these requests will be accommodated where possible.

WB4APR, Bob

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11. [aprsspec] RE: APRS TOCALLS (May 2002)

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Tue, 21 May 2002 08:22:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80158-2002.05.21-08.59.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As I am now the curator of javAPRS, you can reduce its requirements down
to APJAxx. javAPRS only uses this TOCALL when it is acting as a server
such as I have set up to support the example pages. I recommend that
JeAPRS be reduced to APJExx, but I leave that to the current author of
that package.

FYI, javAPRSSrvr (not to be confused with javAPRS) does not require any
TOCALL support as it "does not exist" to the RF world. It has no IGate
or client functions so it does not generate any APRS packets.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Tuesday, May 21, 2002 8:00 AM
> Subject: [aprsspec] APRS TOCALLS (May 2002)
>
> > APJ JavaAPRS,JeAPRS,etc

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12. [aprsspec] Re: APRS TOCALLS (May 2002)

From: KC7ZRU - Tate <kc7zru@arrl.net>
Date: Tue, 21 May 2002 09:54:52 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80206-2002.05.21-11.30.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob - change xastir from APZ to APX. Xastir has been using APX for many
a moon now.

Xastir V1.1.2
APX112

http://map.findu.com/kc7zru for a live example

73

Bob Bruninga wrote:
>
> > APX Xaprs, etc
...
> > APZ Experimental
> >   APZ0xx Xastir

--
              Casper, WY | CARC Repeater
                DN62tt | 146.940
        "The Dungeon" online at http://go.to/kc7zru
            "RTFM" is NOT a 'four letter' word!

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13. [aprsspec] I did _not_ propagate this one!

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 21 May 2002 13:28:06 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <archer@eskimo.com>
Message-ID: <LYR11589-80248-2002.05.21-16.03.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just received a reject message from a spam filter somewhere out
there. E-mail with a virus attached was received at that machine,
and apparently came from my work address.

Since I can't get infected here through e-mail (I run Linux, not
Windows!), I'm absolutely sure that this address is not sending out
virus e-mail. My e-mail program does absolutely nothing with
attachments, scripts, etc.

It's likely that someone on a mailing list I subscribe to got
infected with the W32/KLEZ virus (but not from me!). This virus
finds addresses in the mailboxes and forges e-mail as if it came
from those addresses.

Please run your virus scanners again people! Be wary of
attachments, no matter who they came from.

I apologize if you get multiple copies of this because you're on
more than one mailing list that I also subscribe to. I just want to
keep my "good" name clean.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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14. [aprsspec] Re: I did _not_ propagate this one!

From: David VanHorn <dvanhorn@cedar.net>
Date: Tue, 21 May 2002 15:30:52 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Curt Mills <hacker@tc.fluke.com>, "Curt Mills, WE7U" <archer@eskimo.com>
Message-ID: <LYR11589-80253-2002.05.21-16.06.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 01:28 PM 5/21/2002 -0700, Curt Mills, WE7U wrote:

>I just received a reject message from a spam filter somewhere out
>there. E-mail with a virus attached was received at that machine,
>and apparently came from my work address.

I've had a few of these too, looks hoax-ish.
It talks about an infected email to someone I never heard of before, and
dosen't give any details about the email that would let me identify it.
I scanned here, nothing found.. (Eudora, and common sense..)

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15. [aprsspec] User defined APRS formats (May 2002)

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 21 May 2002 18:57:17 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS SIG <aprssig@lists.tapr.org>
Message-ID: <LYR11589-80282-2002.05.21-18.32.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

APRS USER DEFINED DATA FORMATS LIST May 2002 (Previous was 26 Mar 2001)

HEADER	AUTHOR	DESCRIPTION
{Fnn	WB4APR	nn is a 2 byte descriptor of MITEL GPS data formats
{K1	WB4APR	"K" for Keps and "1" for NASA One line.
{K2n	WB4APR	For NASA two line elements. "n" is line 1 or 2.
{x1	J Bennet for WX	
{x2	J Bennet for WX	

Any more?

de WB4APR@amsat.org, Bob

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16. [aprsspec] Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 22 May 2002 16:55:08 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80443-2002.05.22-16.30.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dale is working on APRSd and needs some up-to-date guidance..
So do I! So here are my replies to his questions based on my
current understandings:?

The RF-Inet-RF anti-loop mechanism should be checking for TCPIP and TCPXX
in the path and NOT be based on a total rejection of 3rd party packets...
(the current brute-force-dont-injest-any-3rdparty packets as a loop
filter is unnecessarily restrictive and kills all other potential uses
of the 3rd party packet as it was intended (ZIP-LAN for example).

DISCUSSION: Dale notes that ON-AIR packet paths do not have TCPIP in
them... But Of course 3rd party messages have it in the encapsulated
path header after the "}". So, by "path" I mean the 3rd party
path, not the primary path header set in the TNC.

Yes, if TCPIP or TCPXX occurs ANYWHERE in the path of a 3rd party packet,
then THAT is the signal that it should not be taken back from RF back into
the internet. Actually if it is anywhere in the packet prior to the final
data field, then I would say do NOT injest it. With or without a *...

> Should the IGATE TNCs path have TCPIP in it?

I'd say no...

>Example From RF:

WA4DSY>APD215,N4NEQ-2,WIDE:}K4JCW>APRS,TCPIP*,WA4DSY*:@220820z3410.21N etc....

Yes, this PARTICULAR 3rd party packet should be ignored since it has TCPIP

in the 3rd party header...

> Also, is RFONLY an alternate to NOGATE or did it go away?

I dont know. Lets choose one (but I'd put them both in until we figure it
out)...

de WB4APR, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

17. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 22 May 2002 17:27:56 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80450-2002.05.22-18.03.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Wednesday, May 22, 2002 3:57 PM
> Subject: [aprsspec] Questons on NOGATE, RFONLY and 3rd party
> stuff (fwd)
>
> The RF-Inet-RF anti-loop mechanism should be checking for
> TCPIP and TCPXX
> in the path and NOT be based on a total rejection of 3rd
> party packets...
> (the current brute-force-dont-injest-any-3rdparty packets as a loop
> filter is unnecessarily restrictive and kills all other potential uses
> of the 3rd party packet as it was intended (ZIP-LAN for example).

I disagree that there is a reason for 3rd party packets to appear on
APRS-IS. Even ZIP-LAN should remove the third-party aspect of the
packets if they are to be transported over APRS-IS.

> DISCUSSION: Dale notes that ON-AIR packet paths do not have TCPIP in
> them... But Of course 3rd party messages have it in the encapsulated
> path header after the "}". So, by "path" I mean the 3rd party
> path, not the primary path header set in the TNC.

Not necessarily true. Most IGate software have TCPIP as a default but
nothing prevents TCPIP or TCPXX to be used on RF nor forces TCPIP or
TCPXX to be used on the Internet.

> > Should the IGATE TNCs path have TCPIP in it?
>
> I'd say no...

But not guaranteed.

> > Also, is RFONLY an alternate to NOGATE or did it go away?

javAPRSSrvr gives the sysop the option to filter out packets with either
RFONLY or NOGATE in the header.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

18. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 22 May 2002 18:09:31 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80455-2002.05.22-18.46.04--lyris.aprsspec#tapr.org@lists.tapr.org>

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> I disagree that there is a reason for 3rd party packets to appear on
> APRS-IS. Even ZIP-LAN should remove the third-party aspect of the
> packets if they are to be transported over APRS-IS.

To clarify my position, I would like to add some more insight into my
thought process.

APRS-IS exists to provide interconnectivity between APRS RF networks.
One of the benefits of its current topology is to allow
interconnectivity of non-RF APRS clients. If, however, third-party
packets are allowed to traverse APRS-IS, those packets become useless to
the attached RF networks. The reason is the size and complexity of the
packets as they should be sent out to RF (a third-party packet within a
third-party packet). If they are sent out with the original header
simply replaced, then the meaning of the third-party packet might be
altered. If the packets are being injected from a non-RF environment,
then the injector should act in a similar manner to an IGate and not
inject third-party packets but inject the packets in their original
form.

APRS-IS server functions should be as transparent to the data as
possible. Dupe checking is a necessary requirement and requires that
the server be able to interpret the FROMCALL and, in javAPRSSrvr's case,
the TOCALL in the header. Further interpretation of the header or the
packet data can become overly burdensome. Let's keep the server
overhead to a minimum. The third-party filtering was made necessary
because some IGates pass them to the Internet from RF in error. What is
to keep those same IGates from using a VIA other than TCPIP or TCPXX.
As long as we have to account for existing problems on APRS-IS, we need
to keep rudimentary filters such as this in place.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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19. [aprsspec] RFONLY & NOGATE info

From: "E. Tupis" <w2ev@rochester.rr.com>
Date: Thu, 23 May 2002 06:03:32 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80534-2002.05.23-05.40.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

RFONLY is the same as NOGATE, in the APRS world. However...RFONLY is a
BEACONet spec and the *only* alias used there for this function. If a
software product developer wishes to have their product used in the
BEACONet service, then it must recognize this alias.

Why? "Gate" means something else to the BEACONet service than it does
in the APRS service. I'll explain more in a followup message a bit
later but that should answer what folks were looking for originally.

By the way...RFONLY is used a *lot* by AX.25-based VHF Contest Rovers on
BEACONet in order to assure they don't inadvertantly violate contest
rules by showing up on the Internet stream. The idea is that the
originating station should have the ability to clearly state how it
wishes to have its signal processed by other stations.

Kind regards,
Ev, W2EV

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20. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 09:44:07 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80556-2002.05.23-09.19.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 22 May 2002, AE5PL Lists wrote:

> I disagree that there is a reason for 3rd party packets to appear on
> APRS-IS. Even ZIP-LAN should remove the third-party aspect of the
> packets if they are to be transported over APRS-IS.

Why?
3rd party is a legal legitimate pAPRS packet format for embedding packets
within packets. It has ALL KINDS of applications:

1) ZIP-LAN packets when they get to RF
2) Any case of multiple applications sharing a single TNC
3) Any packets generated from TNC's not using KISS mode
4) APRStt packets
5) APRSdata packets serving up Satellite info
6) And I can think of many many more... anyplace where you want to use
   a TNC to serve up multiple sources of APRS pacekts...

I dont see why anyone would want to cripple the APRS system by insisting
that only the APRSis can use 3rd party format and forceably EXCLUDE
everyone else from using it. That is quite myopic... Just like with
digipeater looping, the presence of TCPIP or TCPXX is the indicator that
the packet has been through the APRS-IS and should therefore not be
re-accepted into the system. This is the correct loop filter...

Excluding the universal 3rd party format from the IS is only a crutch and
we should work away from that simplistic loop-filtering approach.

> Not necessarily true. Most IGate software have TCPIP as a default but
> nothing prevents TCPIP or TCPXX to be used on RF nor forces TCPIP or
> TCPXX to be used on the Internet.

I disagree. The APRS-IS spec (?) requires all packets that are gated
from IS back to RF to have either TCPIP or TCPXX in them.

> But not guaranteed.

Then lets FIX any non-APRS-IS compliant programs...

de WB4APR@amsat.org, Bob

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21. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 10:35:25 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80566-2002.05.23-10.11.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 22 May 2002, AE5PL Lists wrote:

> > I disagree that there is a reason for 3rd party packets to appear on
> > APRS-IS. Even ZIP-LAN should remove the third-party aspect of the
> > packets if they are to be transported over APRS-IS.

Let me clarify why 3rd party is so valuable as a general APRS mechanism:
3rd party was DESIGNED so that any number of applications may share a
single TNC for their ON-AIR packets. Such as multiple PC's at an EOC or
event NET control tent... That means that the TNC has the path of
TNCALL>APRS,WIDE to put its packets on the air...

Now then, ANY number of laptops, or applications can be connected to the
same TNC and these ADDED applications only need to send }MYAP1>APRS:data
to the TNC to have it transmitted onto the air... Thus, the ON-AIR packet
from 4 different applications at the EOC all sharing the same TNC will
look like this on the air:

```
   TNCALL>APRS,WIDE:}MYAP1>APX:this packet from application #1
   TNCALL>APRS,WIDE:}MYAP2>APX:this packet from application #2
   TNCALL>APRS,WIDE:}MYAP3>APX:this packet from application #3
   TNCALL>APRS,WIDE:}MYAP4>APX:this packet from application #4

I see no reason why we should insist that the APRS-IS ignore these packets
simply because they are 3rd party.  This is denying APRS a tremendous
force-multiplier for APRS capability and applications..

> APRS-IS exists to provide interconnectivity between APRS RF networks.
> One of the benefits of its current topology is to allow
> interconnectivity of non-RF APRS clients.  If, however, third-party
> packets are allowed to traverse APRS-IS, those packets become useless to
> the attached RF networks.

Why?  I see no reason for that to be the case...

> The reason is the size and complexity of the packets as they should be
> sent out to RF (a third-party packet within a third-party packet).

I dont think size is an issue.  3rd party packets as I forsee their main
application, never have anything but a FROM>TO header in the 3rd party
part.  And as we improve our networks, most USABLE paths of the source
TNC's will only have one hop in them.  THus an on-air 3rd party in an
IS-2-RF 3rd party may only add 10 bytes or so to the packet.  This should
not be a problem.

> altered.  If the packets are being injected from a non-RF environment,
> then the injector should act in a similar manner to an IGate and not
> inject third-party packets but inject the packets in their original
> form.

I think this might be the key.  Good idea... if an IGate needs to take a
3rd party packet as above which contains a message back to its local RF,
then here are the rules I would use:

1) If any of the headers contain TCPIP or TCPXX then ignore it!
ELSE
2) Discard the on-air-TNC header and retain only the 3rd party portion.
3) Insert into this   header the ",MYGATE*,I"  IGate identification
------
4) If this packet needs to go back to RF for any reason, then the IS-2-RF
   Igate adds the usual TCPIP or TCPXX for transmission back to RF...

(but in my opinion, the way to do this is to abandon the TCPXX/TCPIP
portion of the path, and simply mark the "I" with a "I*" to give the SAME
meaning and without the long overhead...  Thus the packet wouild do
thusly:

 On-RF: TNCALL>APRS,WIDE:}MYAP1>APX:this packet from application #1
 IS>in: MYAP1>APX,MYGATE*,I:this packet from application #1
 The above packet is what everyone on the APRS-IS sees...
 IS>RF: MYCALL>APRS,DIGIS:}MYAP1>APX,MYGATE*,I*:this packet from APp #1

Here the "I*" tells everyone it has traversed the IS and that this packet
should never again be re-injected back into the APRSIS...

> APRS-IS server functions should be as transparent to the data as
> possible.

Agree completely.  That is why they should accept any ON-AIR 3rd party
format (that has not previously traversed the APRSIS)...

> overhead to a minimum.  The third-party filtering was made necessary
> because some IGates pass them to the Internet from RF in error.  What is
> to keep those same IGates from using a VIA other than TCPIP or TCPXX?

Compliance with the APRS-IS spec...

> As long as we have to account for existing problems on APRS-IS, we need
> to keep rudimentary filters such as this in place.

Agree, but only as an interim fix.  We must have a plan, a goal, and we
must keep working toward that goal.  The goal should be APRS-IS
transparency, and IGate APRS-IS SPEC compliance...  Saying that we will
never allow 3rd party packets to traverse the APRS-IS because it is broken
should not be driving our future designs and new software.

I agree that new software has to have patches due to the existing
```

problems, but this should not prohibit it from attempting to implement th
proper implementation so that APRS-IS can live up to its full potential in
the future...

I like your idea of preserving only the 3rd party part of the packet
though the IS...

Bob

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22. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 23 May 2002 09:49:38 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80570-2002.05.23-10.25.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Thursday, May 23, 2002 8:45 AM
> Subject: [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd
> party stuff (fwd)
>
> 1) ZIP-LAN packets when they get to RF

If they become 3rd party when they hit RF, why should they be gated back
through APRS-IS?

> 2) Any case of multiple applications sharing a single TNC

I have multiple applications using a single TNC and third-party packets
are not used. Third-party packets, by definition, are packets that are
being regenerated from another medium.

> 3) Any packets generated from TNC's not using KISS mode

???? My APRS+SA using a standard TNC doesn't generate third-party
packets (unless they are IGate originated).

> 4) APRStt packets

I thought the intent of APRStt was to generate standard APRS packets.
Why the third-party packet aspect?

> 5) APRSdata packets serving up Satellite info

Again, why does this data need to be encapsulated with an extra header
(which is all that third-party packets do)?

> 6) And I can think of many many more... anyplace where you want to use
>   a TNC to serve up multiple sources of APRS pacekts...

I disagree. Third-party packets are defined for "packets that are to be
transported through third-party (i.e. non AX.25) networks, such as the
Internet, and Ethernet LAN, or a direct wire connection." I fail to see
how using a TNC with multiple applications causes this to occur.

> I dont see why anyone would want to cripple the APRS system

In fact, Bob, I ran an extensive study of APRS-IS this year and the only
packets appearing as third-party packets were packets being improperly
gated from RF to the Internet. According to Chapter 17 of the APRS
specification, the only anticipated uses for third-party packets are for
network tunneling and third-party digipeating.

> I disagree. The APRS-IS spec (?) requires all packets that are gated
> from IS back to RF to have either TCPIP or TCPXX in them.

As you know, there is no APRS-IS specification.

I recommend that we adhere to the APRS specification and keep
third-party packets in their original intent: to provide a means for
packets to be delivered from one APRS RF network to another via a
non-AX.25 medium while holding the original packet's source path header

and data.

While the capability to have multiple layers of third-party headers is
within the bounds of the APRS specification, I would say that adding
this level of complexity to APRS-IS begins to move the APRS-IS out of
the domain of providing an internetworking tool between APRS RF networks
and moves it into the realm of being a rudimentary AX.25 packet router.
Allowing third-party packets to traverse the APRS-IS greatly increases
the complexity of dupe check algorithms (you can't dupe check on the
main packet header any more) and packet interpretation algorithms (same
issue). If third-party packets are allowed on APRS-IS, your are
essentially trying to allow multiple levels of network tunneling to be
carried over APRS-IS. I can speak from experience in saying that the
current architecture of APRS-IS could be greatly compromised if that
were to happen.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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23. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 23 May 2002 10:09:23 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80576-2002.05.23-10.44.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Thursday, May 23, 2002 9:37 AM
> Subject: [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd
> party stuff
>
> Let me clarify why 3rd party is so valuable as a general APRS
> mechanism:
> 3rd party was DESIGNED so that any number of applications may share a
> single TNC for their ON-AIR packets. Such as multiple PC's
> at an EOC or
> event NET control tent... That means that the TNC has the path of
> TNCALL>APRS,WIDE to put its packets on the air...

?????? Why isn't there ANY mention of this use in the APRS
specification?

>   TNCALL>APRS,WIDE:}MYAP1>APX:this packet from application #1

I thought data types and packet content would tell us what type of
application is sending the packet, not trying to bury it under a
third-party header. The term "third-party" means someone or something
"other than the principals". In your example, application #1, #2, etc.
are all principals and should be identified as such.

> Why? I see no reason for that to be the case...
>
> > The reason is the size and complexity of the packets as
> they should be
> > sent out to RF (a third-party packet within a third-party packet).
>
> I dont think size is an issue. 3rd party packets as I forsee

Size is not the issue, see my other post regarding this.

> I think this might be the key. Good idea... if an IGate
> needs to take a
> 3rd party packet as above which contains a message back to
> its local RF,
> then here are the rules I would use:

If it is to be gated back to RF, you need to follow the spec: add
another layer of third-party header. Any other modification would be
changing the meaning of the packet.

What we get into here, again, is multiple levels of tunneling. Now, if
the thought is to only allow one level of tunneling, then all IGates
should gate only the data after the } to the Internet. If the IGate
wants to filter TCPIP and TCPXX, fine but since there is no
specification mandating this, it might be problematic.

I honestly feel that if you try to introduce multiple levels of
tunneling into the current architecture of APRS-IS, you are asking for
trouble. Doing the above at the Igate would keep APRS-IS within its
original intent of APRS RF-Internet-APRS RF connectivity and provide
reasonable loop prevention through dupe checking. The APRS-IS servers
would still filter } data types to prevent errant data from "upsetting
the apple cart".

> Compliance with the APRS-IS spec...

There is no APRS-IS spec.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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24. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 12:47:07 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80589-2002.05.23-12.22.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 23 May 2002, AE5PL Lists wrote:

> If [zip-lan-packets] become 3rd party when they hit RF, why should they
> be gated back through APRS-IS?

Because the APRS-IS is supposed to have a copy of every APRS packet
transmitted on RF anywhere. If these RF 3rd party packets are not
accepted by the APRS-IS, then no application sharing a common TNC and
using 3rd party format can communicate with anyone else via the APRS-IS.

> > 2) Any case of multiple applications sharing a single TNC
>
> I have multiple applications using a single TNC and third-party packets
> are not used.

Agree, simply use KISS and this is easy..

> Third-party packets, by definition, are packets that are
> being regenerated from another medium.

I defined 3rd party packets back prior to the APRS-IS, and the definition
is a packet carried within another packet. There is no such definition as
you quote above... But looking at the wording that Ian used in the APRS
spec, I can see how you interpreted it that way...

> > 3) Any packets generated from TNC's not using KISS mode

> ???? My APRS+SA using a standard TNC doesn't generate third-party
> packets (unless they are IGate originated).

Opps sorry. Sloppy on my part. I meant any "multiple-source packets"...

> > 4) APRStt packets
>
> I thought the intent of APRStt was to generate standard APRS packets.
> Why the third-party packet aspect?

Since every APRStt packet will have a separate ORIGINATOR callsign, then
it must be injeted onto 144.39 as a 3rd party packet if, say, a Kenwood D7
is being used as the interface to 144.39. And since APRStt is designed as

a special event support, meaning portable, then the Kenwood is a prime component. At every Venue in Dayton, I took my APRStt laptop and two Kenwood HT's and we had APRStt DTMF conversion everywhere I went... I envision it being used that way.

> > > 5) APRSdata packets serving up Satellite info >
> Again, why does this data need to be encapsulated with an extra header
> (which is all that third-party packets do)?

So that each one can pass through a NON KISS TNC...

> > 6) And I can think of many many more... anyplace where you want to use
> >   a TNC to serve up multiple sources of APRS pacekts...
>
> I disagree. Third-party packets are defined for "packets that are to be
> transported through third-party (i.e. non AX.25) networks, such as the
> Internet, and Ethernet LAN, or a direct wire connection." I fail to see
> how using a TNC with multiple applications causes this to occur.

One side of the TNC is a wire, the other side is APRS. If you have multiple sources of packets on the wire, then you have to either use KISS protocol, or 3rd party format.

> In fact, Bob, I ran an extensive study of APRS-IS this year and the only
> packets appearing as third-party packets were packets being improperly
> gated from RF to the Internet.

Of course. It is impossible to see 3rd party packets by using the APRS-IS as a monitor because all IGates are currently filtering out all 3rd party packets. That is why I want to slowly change that...

> According to Chapter 17 of the APRS
> specification, the only anticipated uses for third-party packets are for
> network tunneling and third-party digipeating.

Poor choice of words. Those words were not meant to be exclusive. Notice that "direct-wire-connection" is included. In the context of the spec, a TNC that is putting out multiple packets from multiple sources as 3rd party packets, is "digipeating" these packets from its serial port (wire) to its RF port...

> > .... The APRS-IS spec (?) requires all packets that are gated
> > from IS back to RF to have either TCPIP or TCPXX in them.

> As you know, there is no APRS-IS specification.

Yep, its time to fix that.

> I recommend that we adhere to the APRS specification and keep
> third-party packets in their original intent: to provide a means for
> packets to be delivered from one APRS RF network to another via a
> non-AX.25 medium while holding the original packet's source path header
> and data.

I agree completely. But be careful of reading too many restrictions into your interpretation. There is nothing that requires an RF network on both ends. I agree with you completely that we should be following the spec. and that means that 3rd party packets are a general purpose mechanizsm.. and should not be used as a simplistic approach to prevent looping on the APRS-IS.

> While the capability to have multiple layers of third-party headers is
> within the bounds of the APRS specification, I would say that adding
> this level of complexity to APRS-IS begins to move the APRS-IS out of
> the domain of providing an internetworking tool between APRS RF networks
> and moves it into the realm of being a rudimentary AX.25 packet router.
> Allowing third-party packets to traverse the APRS-IS greatly increases
> the complexity of dupe check algorithms (you can't dupe check on the
> main packet header any more) and packet interpretation algorithms (same
> issue). If third-party packets are allowed on APRS-IS, your are
> essentially trying to allow multiple levels of network tunneling to be
> carried over APRS-IS. I can speak from experience in saying that the
> current architecture of APRS-IS could be greatly compromised if that
> were to happen.

No, that is why you proposed the perfect solution which I like. Any 3rd party packet accepted by the APRS-IS, strips off any layers of any carrying TNC headers and only accepts the original packet itself... This needs to be fully thought out, but seems like the approach we need to

take...

de WB4APR@amsat.org, Bob

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25. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 13:05:38 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80596-2002.05.23-12.41.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 23 May 2002, AE5PL Lists wrote:

> > 3rd party was DESIGNED so that any number of applications may share a
> > single TNC for their ON-AIR packets. Such as multiple PC's at an EOC
> > or event NET control tent...
>
> ?????? Why isn't there ANY mention of this use in the APRS
> specification?

Chapter 17 covers the 3rd party format.

> >   TNCALL>APRS,WIDE:}MYAP1>APX:this packet from application #1
>
> I thought data types and packet content would tell us what type of
> application is sending the packet, not trying to bury it under a
> third-party header. The term "third-party" means someone or something
> "other than the principals". In your example, application #1, #2, etc.
> are all principals and should be identified as such.

This is an incorrect interpretation. The TNC is the "principal" since it
is the LICENSED RF transmitting station. It is "carrying" another
application's packet as 3rd party traffic...

[regarding stripping off any multiple headers and only forwarding the
original packet...]:

> If it is to be gated back to RF, you need to follow the spec: add
> another layer of third-party header. Any other modification would be
> changing the meaning of the packet.

We both agree completely here. Any packet going from IS-2-RF needs to
use 3rd party as we have been doing for years. But this is not "another"
layer as you suggest above, because the first layer was already removed at
IS-injection (as you suggested)...

> What we get into here, again, is multiple levels of tunneling.

Not at all. Any packet that goes through the network ONCE will never go
through it again. How do you get multiple levels of tunneling?

> Now, if
> the thought is to only allow one level of tunneling, then all IGates
> should gate only the data after the } to the Internet. If the IGate
> wants to filter TCPIP and TCPXX, fine but since there is no
> specification mandating this, it might be problematic.

Ah, Yes, that is what I thought you proposed and I think it is the right
approach. The absence of an APRS-IS spec that mandates the use of "TCPIP"
and "TCPXX" does not in any way detract from the fact that it *is*
mandated... and must be in all IGate code...

> I honestly feel that if you try to introduce multiple levels of
> tunneling into the current architecture of APRS-IS, you are asking for
> trouble. Doing the above at the Igate would keep APRS-IS within its
> original intent of APRS RF-Internet-APRS RF connectivity and provide
> reasonable loop prevention through dupe checking. The APRS-IS servers
> would still filter } data types to prevent errant data from "upsetting
> the apple cart".

if you mean by "filter" the stripping off of the on-air-TNC-shipping-
header but then accepting the original packet into the IS, then we are in

full agreement...

> > Compliance with the APRS-IS spec...
>
> There is no APRS-IS spec.

Ah!, There IS an IS specification..., it is just that no one has written
it down! ;-) <grin>

de WB4APR@amsat.org, Bob

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26. [aprsspec] Re: NAD27 to WGS84 Datum Conversion for APRS Maps?

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 13:12:15 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS SIG <aprssig@lists.tapr.org>, <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80598-2002.05.23-12.47.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On the subject of NAD27 to WGS84 map conversion, Richard Holbert wrote:

> So, let's define the new field as the datum field, and stick WGS84 in it
> after it's been converted. Can you send me an example of the new header
> format with WGS84 in its propper place?

It is the field that says "reserved". Just put "WGS84" in that location
as the indicator that it has been converted... The source data for all
automatically generated APRSdos maps was the USGS DLG data which I think
was all NAD27?   Here is the header on ANY APRSdos map:

```
 63 ,LAT ORIGIN
 140 ,Long ORIGIN
 18 ,pixels-per-degree
 37.00416 ,       Latitude of map center  (to be put in MAPLIST)
 96.99898 ,Longitude of map center (ditto)
 2060 ,Map Radius            (ditto)
 0 ,reserved
LineFormat
9,4.... map data for the rest of the file...
```

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27. [aprsspec] Re: NAD27 to WGS84 Datum Conversion for APRS Maps?

From: Gerry Creager <n5jxs@tamu.edu>
Date: Thu, 23 May 2002 12:42:13 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80603-2002.05.23-13.18.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The origins of the DLG data predated the widespread use of NAD83, so
you're correct in assuming they were NAD27. Also, som eof the early
SDT-format data were NAD27. USGS is updating their curent offerings on
an as-effected basis to NAD83, with recent adjustments (which means that
NAD83/1990 and NAD83/1999 are likely different in true position by the
degree of techtonic motion for a given coordinate set.

gerry

Bob Bruninga wrote:
>
> On the subject of NAD27 to WGS84 map conversion, Richard Holbert wrote:
>
> > So, let's define the new field as the datum field, and stick WGS84 in it
> > after it's been converted. Can you send me an example of the new header
> > format with WGS84 in its propper place?
>
> It is the field that says "reserved". Just put "WGS84" in that location
> as the indicator that it has been converted... The source data for all

> automatically generated APRSdos maps was the USGS DLG data which I think
> was all NAD27?   Here is the header on ANY APRSdos map:
>
> 63 ,LAT ORIGIN
> 140 ,Long ORIGIN
> 18 ,pixels-per-degree
> 37.00416 ,   Latitude of map center (to be put in MAPLIST)
> 96.99898 ,Longitude of map center (ditto)
> 2060 ,Map Radius   (ditto)
> 0 ,reserved
> LineFormat
> 9,4.... map data for the rest of the file...
>
> ---
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28. [aprsspec] Re: [aprssig] RE: Questons on NOGATE, RFONLY and 3rd party stuff

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 14:00:23 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>,
        APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80609-2002.05.23-13.36.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 23 May 2002, Steve Dimse wrote about 3rd party packets:

> No, I think the original intent of Pete was right. If you are going to
> be injecting the packets that came off of the LAN network, they
> should be sent in a non-thiord party format, instead of sending:

Ah, but the ZIP-LAN is nothing but the wires connecting the serial ports
of several laptops to one TNC. There is no way to get to the APRS-IS
from there. There are just 4 laptops in a tent all hooked up to a TNC.
Everything they do is on RF. My only point is that because the packets
that come out of the TNC are in 3rd party format, the current APRS-IS that
hears them on the air, ignores them... Thus, this Tent and all its
packets "dont exist" in the APRS-IS domain...

>   TNCALL>APRS,WIDE:}MYAP1>APX:this packet from application #1
>
> the application should send:
>
>   MYAP1>APX:this packet from application #1

But we cannot do this from 4 different laptops all connected to a
single TNC without going to KISS and or a whole additional layer of
hardware, firmware, software, Gateways, LANS or whatever and special
configuration of same.... All that stuff is what 3rd party format avoids.

> This way there is no need for IGates to get involved.

Agree. IGates are not involved. Unless the goal of an IGate is to pass
to the APRS-IS everything that is happening in an area on RF... (which I
think of as its main goal...)

Again, its a small problem. I dont want to upset the apple cart. But in
the long term, we must get away from using "3rd party" rejection as the
sole means of eliminating APRS-IS looping.

We must focus on the modification of APRS-IS path headers to make it 100%
reliable that the presence of "TCPIP" or ",I," or ",I*," or ",I:" is the
first layer reject filter for looping... not 3rd party...

Which of course means we have to get all APRS-IS authors to start doing
that... :-)

That is my only point.

Bob

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29. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: "Jeff King" <transit_man@hotmail.com>
Date: Thu, 23 May 2002 18:15:28 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-80611-2002.05.23-13.51.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga <bruninga@usna.edu> wrote:

>Then lets FIX any non-APRS-IS compliant programs...

Where is the compliance spec for the APRS-IS located? Last I heard (6 days
ago at Dayton) is was hopelessly deadlocked.

-Jeff

_____
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---
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30. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 14:25:39 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-80614-2002.05.23-14.01.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 23 May 2002, Jeff King wrote:

> Bob Bruninga <bruninga@usna.edu> wrote:
>
> >Then lets FIX any non-APRS-IS compliant programs...
>
> Where is the compliance spec for the APRS-IS located? Last I heard (6 days
> ago at Dayton) is was hopelessly deadlocked.

Yep, that was tongue-in-cheek... hi hi

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31. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 23 May 2002 15:17:48 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80639-2002.05.23-15.53.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This is where, I think, at least Bob and I agree.

Third-party packets should only appear on AX.25 networks.

Gateways to non-AX.25 networks should strip the AX.25 information from
the third-party packets before forwarding to the non-AX.25 network.

Chapter 17 of the APRS specification should be closely followed when
generating third-party packets:
TNC-2 Format-> Source Path,Network ID,Gateway*:packet
Of course, the AEA format can be used as well. The source path is from
the receiving end, the Network ID & Gateway is from the gateway putting
the packet back into an AX.25 network. TCPIP (for verified stations)

and TCPXX (for non-verified stations) are to be used for the Network ID
for packets gated from the Internet. TCPXX packets can be gated to RF,
but it is the responsibility of the IGate operator to make sure they
adhere to individual country third-party traffic rules.

Based on this thought line, APRS-IS servers can continue to block
third-party packets to reduce loop problems introduced by errant IGates.
IGates should gate ALL third-party packets from RF to APRS-IS except for
third-party packets with TCPIP or TCPXX in the third-party header.
Gated third-party packets should have the AX.25 headers and the } data
type removed.

This methodology prevents nesting of third-party packets, leaves the
current APRS-IS intact, and permits future experimentation and expansion
of the APRS network.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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32. [aprsspec] Re: [aprssig] RE: Questons on NOGATE, RFONLY and 3rd party stuff

From: "Brent Hildebrand" <bhildebrand@earthlink.net>
Date: Thu, 23 May 2002 13:26:58 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "TAPR APRS Special Interest Group" <aprssig@lists.tapr.org>,
        "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80641-2002.05.23-16.03.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> On Thu, 23 May 2002, Steve Dimse wrote about 3rd party packets:
>
> > No, I think the original intent of Pete was right. If you are going to
> > be injecting the packets that came off of the LAN network, they
> > should be sent in a non-thiord party format, instead of sending:
>
> Ah, but the ZIP-LAN is nothing but the wires connecting the serial ports
> of several laptops to one TNC. There is no way to get to the APRS-IS
> from there. There are just 4 laptops in a tent all hooked up to a TNC.
> Everything they do is on RF. My only point is that because the packets
> that come out of the TNC are in 3rd party format, the current APRS-IS that
> hears them on the air, ignores them... Thus, this Tent and all its
> packets "dont exist" in the APRS-IS domain...

Many new Laptop computers do NOT have serial ports. Many do have built in
802.11b.   That latter works great with APRS, allowing the sharing of a TNC
with multiple computers, and no wires attached. The KIpSS program talks to
a TNC in Kiss mode. Client programs can connect via TCP/IP, locally on an
802.11b network, or across the world via the Internet. Each packet is
transmitted in this format:
MYCALL>MYTO,MYPATH:MyData

> >   TNCALL>APRS,WIDE:}MYAP1>APX:this packet from application #1
> >
> > the application should send:
> >
> >   MYAP1>APX:this packet from application #1
>
> But we cannot do this from 4 different laptops all connected to a
> single TNC without going to KISS and or a whole additional layer of
> hardware, firmware, software, Gateways, LANS or whatever and special
> configuration of same.... All that stuff is what 3rd party format avoids.

It is not that difficult.   ZipLan is difficult if you don't have a serial
port.

> > This way there is no need for IGates to get involved.
>
> Agree. IGates are not involved. Unless the goal of an IGate is to pass
> to the APRS-IS everything that is happening in an area on RF... (which I
> think of as its main goal...)
>
> Again, its a small problem. I dont want to upset the apple cart. But in

> the long term, we must get away from using "3rd party" rejection as the
> sole means of eliminating APRS-IS looping.
>
> We must focus on the modification of APRS-IS path headers to make it 100%
> reliable that the presence of "TCPIP" or ",I," or ",I*," or ",I:" is the
> first layer reject filter for looping... not 3rd party...
>
> Which of course means we have to get all APRS-IS authors to start doing
> that... :-)
>
> That is my only point.
>
> Bob

I am in favor of going gating IS data to RF in a non-3rd party format. But
it would take years, IF EVER, before one can remove the current filtering of
"3rd party" packets.

Brent KH2Z

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33. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 23 May 2002 16:39:49 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80652-2002.05.23-17.15.25--lyris.aprsspec#tapr.org@lists.tapr.org>
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One other thought that Bob brought up that I, in principle, I agree
with. I have always thought that the IGate injecting the packet into
APRS-IS should be identified in the header. If we use the third-party
header principle, the source header gets truncated to the "last digi" or
where the * is. If we use Bob's idea and have the injecting IGate do
this truncation and then add its own callsign-SSID,I*, we would have a
complete history of a packet, no matter how many times it makes it to RF
and back.

For instance, lets look at a bad example:

AE5PL>APRS,AE5PL-11*,WIDE3-2,WIDE3-3:rest of packet
Gets gated into the Internet by AE5PL-10:
AE5PL>APRS,AE5PL-11,WIDE3-2,AE5PL-10,I*:rest of packet
Gets gated to RF by KC5GOI:
KC5GOI>APRS,WIDE2-2:}AE5PL>APRS,AE5PL-11,WIDE3-2,AE5PL-10,I,TCPIP,KC5GOI
*:rest of packet
Gets gated back to Internet by K7PW:
AE5PL>APRS,AE5PL-11,WIDE3-2,AE5PL-10,I,TCPIP,KC5GOI,K7PW,I*:rest of
packet

Now, I know this should never happen. I am just using it to illustrate
how the packet header is carrying a complete history of the packet route
using this method of injecting IGate identification.

Food for thought.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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34. [aprsspec] Re: [aprssig] RE: Questons on NOGATE, RFONLY and 3rd party stuff

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 19:59:58 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        TAPR APRS Special Interest Group <aprssig@lists.tapr.org>
Message-ID: <LYR11589-80684-2002.05.23-19.36.00--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

On Thu, 23 May 2002, Brent Hildebrand wrote:

> > Ah, but the ZIP-LAN is nothing but the wires connecting the serial ports
> > of several laptops to one TNC.
>
> Many new Laptop computers do NOT have serial ports. Many do have built in
> 802.11b.   That latter works great with APRS, allowing the sharing of a TNC

No question that there are many many ways to work around and use new
hardware. I would never expect someone else to use 3rd party format where
there are shorter alternatives. But APRS is not going to be the kind of
system where we instantly obsolete all older ways of doing things each
time everyone rushes out to buy the latest Bill Gates gizmo...

> It is not that difficult.   ZipLan is difficult if you don't have a serial
> port.

So dont use it. But we should not insist that because someone with a new
toy cannot use it that therefore we are going to make sure that no one else
can either...

> I am in favor of gating IS data to RF in a non-3rd party format. But
> it would take years, IF EVER, before one can remove the current filtering of
> "3rd party" packets.

Well, to clarify some confusion maybe, I never was opposed to using 3rd
party for IS-2-RF. I'm the one that suggested it in the first place. I
am only asking that in the future we not then depend on 3rd party
filtering as the only means for preventing APRS-IS looping. LOOP
detection should be based on PATH and all APRS-IS to RF packets should
contian an indication that they came through the APRS-IS. That is what
should be the filter trigger....

As you have probably seen in other email, our discussions have arrived at
a solution that is fully backwards compatible, yet allows 3rd party
packets (only the internal part) to be accepted by the APRS-IS.. this
should make this issue moot...

de WB4APR@amsat.org, Bob

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35. [aprsspec] RE: Questons on NOGATE, RFONLY and 3rd party stuff (fwd)

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 23 May 2002 20:06:00 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80686-2002.05.23-19.41.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 23 May 2002, AE5PL Lists wrote:

> AE5PL>APRS,AE5PL-11,WIDE3-2,AE5PL-10,I,TCPIP,KC5GOI,K7PW,I*:rest of
> packet
>
> Now, I know this should never happen. I am just using it to illustrate
> how the packet header is carrying a complete history of the packet route
> using this method of injecting IGate identification.
>
> Food for thought.

Yes, I want to make sure that nothing we do now locks out the potential
for APRS-IS transparency in an AX.25 header. That is, the APRS-IS is just
another digipeater....

Bob

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36. [aprsspec] Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 24 May 2002 09:07:19 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-80810-2002.05.24-08.42.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Authors,

> 3) All packets to be injected into the APRS-IS will have their PATHS
> modified to include the SOURCE of the injecting IGate. Assuming MYGATE
> is the callsign of any given IGATE, this is done by inserting
> ",MYGATE*,I" on the end of the path.

This is easy to do for standard TAPR-2 Headers, but a pain to do for AEA
headers, so authors might consider just doing it for TAPR-2 headers and
not worrying about the minority of AEA headers for now.

THis seemingly lack of thoroughness is really a brilliant short cut, since
not doing the AEA is no difference than what we have now, and by avoiding
that extra work, and taking the trivial case of TAPR-2 headers first, that
will get us 95% of the way toward IGate identification easily...

I notice that most IGate software is doing this now. We need to get the
remainder to incorporate this very valuable technique for the future of
the APRS-IS...

de WB4APR, Bob

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37. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 24 May 2002 08:27:34 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80823-2002.05.24-09.03.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

True about the AEA headers. They can be a pain. However, since most
IGate software already accounts for AEA packets, the insertion algorithm
shouldn't be too difficult. In fact, it is outlined in the third-party
header description in chapter 17 of the spec.

I recommend inserting MYGATE,I* instead of MYGATE*,I. The reason is
what is done at the return to RF end. At the Internet to RF end,
according to the spec, the path is to be shortened to the last digi. In
my case, that would preserve the I whereas in you case the I would be
dropped.

I also think, as I showed in my example, that the path should be
shortened per the third-party header spec at the source end before
appending ,MYGATE,I*. This will reduce path lengths in the third-party
header and no information is lost regarding the history of the packet's
traversal.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Friday, May 24, 2002 8:08 AM
> Subject: [aprsspec] Injecting IGate identification
>
> Assuming MYGATE
> > is the callsign of any given IGATE, this is done by inserting
> > ",MYGATE*,I" on the end of the path.
>
> This is easy to do for standard TAPR-2 Headers, but a pain to
> do for AEA

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38. [aprsspec] Re: [aprssig] Re: we have a loop

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 24 May 2002 10:04:42 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>
Message-ID: <LYR11589-80837-2002.05.24-09.40.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 24 May 2002, Steve Dimse wrote:

> It isn't a loop, an IGate is modifying the packet path, removing the
> rf path and putting TCPIP and its call into it. This alone is proof
> that Bob's filtering proposal won't work!

I think I disagree completely with the conclusion as stated.

My filtering proposal will work, if implemented properly. But of course
it wont work until the "garbage-in" is fixed, and this will be a long
term project. We must have a long term goal to fix the garbage on the
APRS-IS.

In the context of the statement "it wont work", I can agree that "no
single flip-switch-instant-gratification-one-person-implementation will
work the instant it is activated until the "rest" of the implementation
is in place first...

I am trying to help us define the "end-goal" so that we can start
designing towards that goal and so that at some point in the future, we
have all the pieces in place so that we can "flip-the-switch" and it will
work...

To date, I have seen no successful effort by the authors of IGates to
agree to a workable end goal other than the ",MYGATE,I" construct as a
first step. Until we have a known end objective, that all authors can
strive towards, the APRS-IS will continue to add entropy until it ceases
to work.

The steps toward that end objective that I have seen that would work are:

1) Doing IGate identification (,MYGATE,I)
2) 100% adherence to insertion of either TCPIP or ",I" in all IS>RF pkts
3) Filtering based on TCPIP, TCPXX, and ",I"
4) Notice that you can RETAIN the 3rd party filter because we have now
   arrived at the solution of accepting only the payload of a 3rd
   party packet into the IS (after the #2 loop filter above)

5) Once all that is in place, then we flip-the-switch and the servers will
no longer circulate any APRS-IS packets not in compliance.

Any devils in the details?

de WB4APR, Bob

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39. [aprsspec] RE: Injecting IGate identification

From: Roger Barker <roger@peaksys.co.uk>
Date: Fri, 24 May 2002 15:52:42 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80853-2002.05.24-10.28.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-80823-2002.05.24-09.03.15--roger#peaksys.co.uk@list
s.tapr.org>, AE5PL Lists <HamLists@ametx.com> writes
>True about the AEA headers. They can be a pain. However, since most
>IGate software already accounts for AEA packets, the insertion algorithm
>shouldn't be too difficult.

The problem of "TNC2" frame headers and "AEA" frame headers, of course
only occurs when using a TNC in terminal mode. It's not hard to parse

"AEA" frame headers into a TNC2 compatible format before passing them to
the internet.

>I recommend inserting MYGATE,I* instead of MYGATE*,I. The reason is
>what is done at the return to RF end. At the Internet to RF end,
>according to the spec, the path is to be shortened to the last digi. In
>my case, that would preserve the I whereas in you case the I would be
>dropped.

This was discussed at great length a few months ago. You don't need a
'*'. All these indicate that the frame has gone through an IGATE:-

MYGATE,I
MYGATE*,I
MYGATE,I*
MYGATE*,I*

So why not use the first? That way you don't create an invalid "TNC2"
frame header. E.g. this is an invalid "TNC2" frame header:-
G4IDE>APRS,RELAY*,WIDE,MYGATE*,I

(Careful path shortening will also nearly, but not quite, get round the
problem.)

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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40. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 24 May 2002 11:22:19 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80859-2002.05.24-10.58.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 24 May 2002, AE5PL Lists wrote:

> I recommend inserting MYGATE,I* instead of MYGATE*,I....

I agree completely that when a packet "arrives" to an end IGate "from
the APRS-IS, that the I* should be marked to show that the Internet was
the source of the packet. I believe this strongly. And equally, I
believe that an RF packet injected into the APRS-IS should be injected
without the "*" mark (that-is, a naked ",I") because at that point it
has not yet traversed the APRS-IS.

The thing we must determine is exactly what "process" is the
one that actually flips the "naked,I" to an ",I*".

I think it should be the IGate that is monitoring the APRS-IS. The
instant it takes a packet from the APRS-IS stream is when the "naked,I"
becomes a ",I*". This is totally consistent with the definition of a "*"
in a TAPR-2 header. It is marked when it is "received" to show HOW it
was received....

Thus, IGates injecting a packet into the APRS-IS should not pre-mark it
with ",I*" since that violates the principle of least astonishment
relative to TAPR-2 convention. Marking it with a "naked,I" means
"this packet is intended for the APRS-IS", not that it actually got
there... We can only konw that it got somewhere (that is, traversed the
APRS-IS) when it comes back out. That is when it should be marked with a
",I*".

And furthermore therefore, the ",MYGATE*,I" should be marked with a "*"
when that IGate puts the packet onto the APRS-IS. At that instant is when
the packet was actually processed by MYGATE. Thus an injected packet
should have a MYGATE*, followed by a "naked,I" showing the next hop
pending.

> I also think, as I showed in my example, that the path should be
> shortened per the third-party header spec at the source end before
> appending ,MYGATE,I*.

This can be a separate issue. I think I agree, but I dont want to boggle
down the fundamental construct with the devils in the details.. <grin>.
My initial thought is to only bring in the path-reducers when the path
actually exceeds the limit. I think the future APRS network with WideN-N
and smart-digi routing will see much shorter headers in general, and more
IGates with shorter paths and so I dont want to start throwing out path
data until we have to. I envision the following as the typical future
path:

  W4XX>APRS,MYDIGI,WIDE2-2:my packet stuff   <== original RF Packet

  W4XX>APRS,MYDIGI,WIDE2-2,MYGATE*,I*:my packet stuff   <== in APRS-IS

If it goes back to RF then it would be carried by this header:

  DXGATE>APRS,DIGX,WIDE1-1:}above packet goes here...

And eventually (someday) I would like to see it simply be a KISS packet:

  W4XX>APRS,MYDIG,WIDE3-2,MYGATE,I,DXGATE,DIGIX,WIDE2-1*:my packet stuff

That is a 7 hop path which identifes the SOURCE RF digi, the MYGATE
injection point, the DXGATE extraction point, the destination SOURCE RF
DIGI and the paths at both ends. THAT IS MY DREAM.

Notice that this packet only appears on RF ONCE in its long form. and
that is ONLY at the end delivery point, and this is ONLY for rare
IS-to-RF end user delivery.

FURTHER! If the packet was originally heard by the first IGate from the
first MYDIG* then the following WIDE3-3 wouild be dropped. Once a packet
is heard, all subsequent unused path junk CAN be dropped. And I think we
eventually should have an IGate monitoring ALL digis so that we do get
these on the first hop. AND in that case, the final WIDE2-1 is not needed
either! Thus the "typical" end-to-end APRS packet would look like this:

 W4XX>APRS,MYDIG,MYGATE,I,DXGATE,DIGIX*:my packet stuff

Which is sure sweet. Full path details end-to-end...

This is what drives every comment I have made over the last few years on
the topic of APRS-IS. I am not trying to say lets do this end-for-end
stuff now. But I am fighting hard to make sure that we don't do anything
NOW that would PREVENT us from moving to this in the future...

And this is why we MUST eventually get away from using the
3rd-party-crutch filter as the only means for loop detection. It prevents
us from ever going to KISS packet regeneration at the distant end!

Without detecting "TCPIP" or "I" as a primary means of loop detection, we
will forever be denied the ability to use KISS mode to regenerate
packets from the APRS-IS..

de WB4APR, Bob

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41. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 24 May 2002 11:56:11 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80872-2002.05.24-11.32.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 24 May 2002, Roger Barker wrote about MYGATE*,I:

> This was discussed at great length a few months ago. You don't need a
> '*'. All these indicate that the frame has gone through an IGATE:-
>
> MYGATE,I
> MYGATE*,I
> MYGATE,I*

> MYGATE*,I*
>
> So why not use the first? That way you don't create an invalid "TNC2"
> frame header. E.g. this is an invalid "TNC2" frame header:-
> G4IDE>APRS,RELAY*,WIDE,MYGATE*,I

Sorry, Roger, I disagree completely. The reasons are many:

1) Consistancy with the function of the AX.25 has-been-digipeated-bit.

2) Having multiple *'s in a TAPR-2 path is NOT an "invalid" header.
   It is only "invalid" if you define it that way in your own code.

3) The DSP-12 and possibly other TAPR-2 implementations ALWAYS display
   a "*" by every digi field with the has-been-digipeated-bit set.

   The packet: G4IDE>APRS,RELAY*,WIDE*,MYGATE*,I is perfectly valid.

4) We must NOT throw away the state of the has-been-digipeated-bit when
   we convert an AX.25 header to its ASCII equivalent. This severly
   constrains our future abilities to do anything with Header data.

I say again, every digipeater in an AX.25 field has a has-been-digipeated
bit, and that bit is either a "1" or a "0". We must preserve that
information. It is only a "convenience" that the TAPR2 header in many
TNC's drop all the *'s except the last one when converting a header to
ASCII. But that is NOT a good idea. We should not follow this
simplification blindly as it cripples our future implementations and
throws away perfectly valid data.

PREEMPTIVE digipeating is an idea that has been around since 1994 and it
is dependent on knowing what digis have been used regardless of their
POSITION in the header. The only way of preserving that information when
converting the header to its ASCII equivalent is the *. It is perfectly
good, and it works, and it is totally consistent. If one wants to know
what is the LAST digi heard, then it is the LAST * (in a conventional
packet).

If your code considers a packet with multiple *'s in it as invalid, then
that is only a local restriction of your code and it will not work with a
DSP-12 TNC... I hope I can convince you that we must preserve the state
of the has-been-digipeated-bit in all ASCII representations of an AX.25
header if we are to make any future improvements on APRS routing.

Sure, it is not "needed" "now", but why tie our hands in the future by
putting in arbitrary restrictions now and accepting a process that throws
away critical PATH info that could be so valuable?

de WB4APR@amsat.org, Bob

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42. [aprsspec] Re: [aprssig] Re: [aprsplus] wideN-N issues

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 24 May 2002 12:13:07 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>,
        APRS+ <APRSPLUS@k8sn.org>, APRSSPEC <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80879-2002.05.24-11.50.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On a bad day, I wake up and dream of saying the following:

"I wish that APRS never allowed any paths longer than 3 hops. APRS was
designed for tactical real-time support of events and local operations.
ANY event or local happening can be done by 3 hops. One to get to the BIG
wide in the middle, and ONE to assure end delivery to an HT...

If 3 hops cannot do what you are tyring to do with APRS, then APRS on
144.39 is not the tool for the job. Use something else.

But then I go back to sleep... and the nightmare is over. de WB4APR

On Fri, 24 May 2002, Chris West wrote:

> So is the goal to get to an I-GATE?... I don't think the goal of APRS
> should be to "transmit the shortest path required to reach an
> I-GATE".... I do agree that something needs to be done to make the
> system more effecient. I suggest we first look at using smart beaconing
> in mobile trackers and limit digi's so they only transmit their
> position/info no more than once an hour.

I oppose this last idea strongly.. Mobiles driving in new areas would
never even see the digi! In one hour he covers 60 miles! The rule
should be:

DIGIS send a local DIRECT packet once every 10 minutes.
DIGIS send a ONE HOP packet once every 30 minutes.

10 minutes for local and 30 minutes for "area" are the two NET-CYCLE times
quoted in the spec.

I do also think a 2 hop path every hour is not a bad idea. ANything
beyond that is in my opinion, just QRM...

de WB4APR, Bob

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43. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 24 May 2002 11:42:02 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80887-2002.05.24-12.18.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Let's take a step back and look at what the spec says (and most IGates
are already doing) and what we are proposing. Chapter 17 in the spec
says that the third-party header (the header after the }) will be
comprised of (TNC-2 format used here for clarity):

Source Path Header (without "unused" digipeaters, * or :),Third-Party
Network Identifier ("callsign"),Callsign of Receiving Gateway Station
(-SSID)*:

So, according to the spec, a packet that looks like the following on
APRS-IS:

AE5PL>APRS,AE5PL-11*,WIDE3-2,WIDE5-5:rest of packet

Should be gated to RF as:

IGATECALL>APRS,PATH:}AE5PL>APRS,AE5PL-11,WIDE3-2,TCPIP,IGATECALL*:rest
of packet

Note that WIDE5-5 has been removed, but WIDE3-2 hasn't as it indicates
that one WIDEn-n digi has digi'ed the packet.

What is being recommended is the insertion of MYCALL,I at the insertion
IGate (the IGate that puts the packet into APRS-IS). To be compatible
with the spec for retransmission back to RF and maintain a full history
of the packets route, the insertion needs to be as follows (TNC-2 format
used for clarity):

AE5PL>APRS,AE5PL-11,WIDE3-2,MYCALL,I*:rest of packet

This will cause the packet to appear as the following if it is gated
back to RF:

IGATECALL>APRS,PATH:}AE5PL>APRS,AE5PL-11,WIDE3-2,MYCALL,I,TCPIP,IGATECAL
L*:rest of packet

This tells the recipient that the packet entered APRS-IS at MYCALL and
exited at IGATECALL. It also tells AE5PL that MYCALL saw the packet
after being digi'ed by AE5PL-11 and one WIDEn-n digi.

As the third-party packet definition already exists and most IGates
follow it, this would be the easiest implementation to maintain routing
history and filtering desired by Bob and still keep compatible with all

IGates.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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44. [aprsspec] RE: Injecting IGate identification

From: Roger Barker <roger@peaksys.co.uk>
Date: Fri, 24 May 2002 17:59:04 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80891-2002.05.24-12.36.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-80872-2002.05.24-11.32.00--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
[snip]
>
>2) Having multiple *'s in a TAPR-2 path is NOT an "invalid" header.
>   It is only "invalid" if you define it that way in your own code.

(Note - it is NOT invalid in my code, so there's no self-interest in my
comments.)

I did not introduce the terms "TNC2" and "AEA". Part of my point is that
the different frame header formats are an arbitrary feature of the
hardware being used. As I said, I think all headers should be converted
into one format before being passed to the internet. (That IS a feature
of my code.)

However, given that you and AE5PL were discussing the situation in terms
of "TNC2" and "AEA" headers, what I quoted was an invalid "TNC2" header,
i.e. a TNC2 would never produce a header like that.

>3) The DSP-12 and possibly other TAPR-2 implementations ALWAYS display
>   a "*" by every digi field with the has-been-digipeated-bit set.
>
>   The packet: G4IDE>APRS,RELAY*,WIDE*,MYGATE*,I is perfectly valid.

If the '*' is used to indicate EVERY 'H' bit that is set, then the above
is a valid header. With a TNC2 header, the '*' indicates the LAST 'H'
bit set. So we now have "TNC2", "AEA" and "DSP-12" headers, which
reinforces my point about the desirability of converting them all to one
format.

>4) We must NOT throw away the state of the has-been-digipeated-bit when
>   we convert an AX.25 header to its ASCII equivalent. This severly
>   constrains our future abilities to do anything with Header data.

Not at all. My suggestion should be backward compatible with all
existing IGATE implementations, and contains additional information that
can be used by future implementations. This frame -

G4IDE>APRS,RELAY*,WIDE,MYGATE,I

includes all the information about the original RF path, plus the
additional information about how it was passed to the internet.

In terms of future development, it constrains nothing, because any
software passing it back to RF is either going to understand the last
two "digis" or ignore them.

Similarly, any path analysis software looking at the internet data
stream will either understand them or ignore them.

[snip]

>If your code considers a packet with multiple *'s in it as invalid, then
>that is only a local restriction of your code and it will not work with a
>DSP-12 TNC...

As I said, there is no self-interest in my comments.

> I hope I can convince you that we must preserve the state
>of the has-been-digipeated-bit in all ASCII representations of an AX.25
>header if we are to make any future improvements on APRS routing.

See my above comment - "It constrains nothing..."

>Sure, it is not "needed" "now", but why tie our hands in the future by
>putting in arbitrary restrictions now and accepting a process that throws
>away critical PATH info that could be so valuable?

I'm not throwing away anything. All the path info is there whether or
not you put in the '*'(s). Packets aren't going to "drop off" the
internet onto RF, they are going to be gated by intelligent systems.
Those systems will either understand MYGATE(*),I(*) or they won't. If
they don't, then it is possible that an incorrect RF path would be
assumed if you put in the '*'(s).

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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45. [aprsspec] Possible Bandwidth solution

From: Mark Cheavens <mcheavens@usa.net>
Date: Fri, 24 May 2002 13:04:28 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS+" <APRSPLUS@k8sn.org>, "APRSSPEC" <aprsspec@lists.tapr.org>,
        UIDIGI@EGROUPS.COM
Message-ID: <LYR11589-80914-2002.05.24-13.40.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here is a possible solution that COULD be implemented to solve SOME of the
path problems.

Have the N-N digipeater be smart enough to do adaptive hold off based upon
the number of decrements in the path.

SO,
If a digi hears a packet of Wide5-5 it digipeats it immediately (it is the
first digi to hear the packet).
If the second digi hears the packet Wide5-4 it then does a WAIT for x
amount of time. (x being a parameter in seconds of DEAD air indicating
available bandwidth). All packets would be held in y time buffer, if time y
expires OR the buffer is full then it is dumped.
If the third digi hears Wide5-3 then it waits for 2x time buffer and holds
that packet in it's y buffer with all the others.
ETC......

This would self management the bandwidth and always allow people with
direct access to the digi priority and still propagate packets a long way
IF the bandwidth is available.

Mark Cheavens
KC5EVE

All of this is just a patch instead of having REALLY smart digi's that do
what can be done and what the end user would LIKE to have.

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46. [aprsspec] RE: [aprssig] Re: [aprsplus] wideN-N issues

From: Bill Diaz <william.diaz@attbi.com>
Date: Fri, 24 May 2002 13:04:44 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS+ <APRSPLUS@k8sn.org>, APRSSPEC <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80916-2002.05.24-13.41.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Guy,
  See below.

On Friday, May 24, 2002 12:38, Guy Story, KC5GOI [SMTP:kc5goi@kc5goi.net]
wrote:
> Yet another valid reason. I see this one happen as well. FYI Not much
can be
> done about it when the weather gives us fun/fits.

> On Friday 24 May 2002 09:53 am, you wrote:
> >   Guy, if you agree and follow, send on to all the reflectors.
> >   (reword as needed).
SNIP
>
> I did have to think about this but Johns point is if a message that
> aprsdDTN should be gating is sent out on a IGATE in Shreivport instead,
the
> message is doomed to be resent multiple times. Some users still do not
fully
> understand that and IGATE that heard the station in question last will be
the
> one that sends out a message to that station. This can cause a message
to
> try to go a less than optimized route. I know how to stop this in
WinAPRS
> and APRS+ but not in APRSD. How to cure the distant IGATE sending
messages
> that a more local IGATE should handle, you got me there. Possibly a
range
> filter.

> Bill Diaz, does the range filter in AHUB deal with it as a side
> effect of the range filters you are using? I will email the aprsD list
to
> see if it is a feature that could be added.

AHub does not contain any range filters.

AFilter, on the other hand, does contain the ability to geofilter location
packets. The station must first send a valid location packet that falls
within either of the 2 available geofilters. All subsequent packets from
this station will be passed until the station moves outside the geofilters.

Regional hubs that use AFilter (generally on port 14579) can provide the
necessary geofiltering for users who wish to limit their APRS bandwidth to
stations within 1 or 2 distinct geographical areas.

A regional (geofiltered) hub can easily be implemented with AFilter and
AFilterX (multi-user extensions for AFilter).

Bill KC9XG
> Guy Story, KC5GOI
> Itel-Tigerbyte LLC
> gstory@tigerbyte.com
> 940.891.4575
>
> ---
> You are currently subscribed to aprssig as: kc9xg@attbi.com
> To unsubscribe send a blank email to leave-aprssig-28856M@lists.tapr.org
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47. [aprsspec] Re: [aprssig] Possible Bandwidth solution

From: Mark Cheavens <mcheavens@usa.net>
Date: Fri, 24 May 2002 13:45:26 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS+" <APRSPLUS@k8sn.org>, "APRSSPEC" <aprsspec@lists.tapr.org>,
      UIDIGI@EGROUPS.COM
Message-ID: <LYR11589-80925-2002.05.24-14.21.12--lyris.aprsspec#tapr.org@lists.tapr.org>
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Already had a brain explosion.......

Two paths:
1. LOCAL: Digipeater strips the path and digipeats it...LOCAL digi that
hears it directly and digipeats it ONLY.
2. DIGI: First digi hears it and changes path to DIGI1
         Second digi hears it and changes path to DIGI2

ETC.

By using the timers listed below (let's say timer x is 10 seconds). Then IF Digi2 has had 10 seconds of NO activity then it digipeats the first packets in it's held buffer that has not expired because of timer y (y being maybe 1 minute).

Digi 3 would then need 2x (so 20 seconds of dead air) before sending any of the items in it's buffer.

Using this method would in areas of high density make sure there is enough bandwidth for people close to EACH of the digi's AND in rural areas would make the packets go FARTHER.

In effect ALL packets would be automatically be load balanced and NO paths would have to be changed EVER while traveling. It would make ABOUT the same number of packets be visable in any area (rural area's would have packets from farther away and dense area's would have more local traffic).

The only issue I can't think decide on is the one of Priority....Example: DigiZ hears the same packet twice (once by digiA as DIGI2 and DigiB as DIGI3.....Should the packet be put in the 2 or 3 group of priorities.)

I think that this would REALLY help out as well with band openings. It would always give direct heard higher priority with it's hold off timer.

Mark Cheavens
KC5EVE

At 01:04 PM 5/24/2002 -0500, Mark Cheavens wrote:
>Here is a possible solution that COULD be implemented to solve SOME of the
>path problems.
>
>Have the N-N digipeater be smart enough to do adaptive hold off based upon
>the number of decrements in the path.
>
>SO,
>If a digi hears a packet of Wide5-5 it digipeats it immediately (it is the
>first digi to hear the packet).
>If the second digi hears the packet Wide5-4 it then does a WAIT for x
>amount of time. (x being a parameter in seconds of DEAD air indicating
>available bandwidth). All packets would be held in y time buffer, if time
>y expires OR the buffer is full then it is dumped.
>If the third digi hears Wide5-3 then it waits for 2x time buffer and holds
>that packet in it's y buffer with all the others.
>ETC......
>
>This would self management the bandwidth and always allow people with
>direct access to the digi priority and still propagate packets a long way
>IF the bandwidth is available.
>
>Mark Cheavens
>KC5EVE
>
>All of this is just a patch instead of having REALLY smart digi's that do
>what can be done and what the end user would LIKE to have.
>
>
>---
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48. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 24 May 2002 19:40:06 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-80995-2002.05.24-19.15.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 24 May 2002, Roger Barker wrote:

> hardware being used. As I said, I think all headers should be converted
> into one format before being passed to the internet.

I hope and I believe we all agree here. This is the starting point.

> If the '*' is used to indicate EVERY 'H' bit that is set, then the above
> is a valid header. With a TNC2 header, the '*' indicates the LAST 'H'
> bit set. So we now have "TNC2", "AEA" and "DSP-12" headers, which
> reinforces my point about the desirability of converting them all to one
> format.

Yes, and I have always wanted all has-been-digipeated bits to be indicated
with a * so that we do have an unambiguous common standardized header to
deal with without any ambiguities. APRS has no requirement that path
data be processed sequentially. We must divorce ourseleves therefor from
the "assumption" in most headers that prior-used fields may drop the *.

> >4) We must NOT throw away the state of the has-been-digipeated-bit when
> >   we convert an AX.25 header to its ASCII equivalent. This severly
> >   constrains our future abilities to do anything with Header data.
>
> Not at all. My suggestion should be backward compatible with all
> existing IGATE implementations, and contains additional information that
> can be used by future implementations. This frame -
>
> G4IDE>APRS,RELAY*,WIDE,MYGATE,I
>
> includes all the information about the original RF path, plus the
> additional information about how it was passed to the internet.

I disagree. It indicates that you heard it via RELAY*, but it only
implies an intent for it to be further routed via WIDE,MYGATE,I.
There is no indication that in fact, these processes have occurred.

> In terms of future development, it constrains nothing, because any
> software passing it back to RF is either going to understand the last
> two "digis" or ignore them.

We should not be building a network routing system based on assumptions
and inferences and ambiguous routing indicators. Every DIGIPEATER field
in AX.25 indicates TWO separate and distinct functions:

  1) An INTENDED ROUTE,
  2) A mark as to whether that ROUTE was used

These two separate and distinct functions must never be blurred.
Notice that callsign substitution is a subset of #2. That is, that the
"intended" route was replaced with an actually USED route and this
actually USED route is marked with a *. I will strongly oppose any
bluring of these TWO separate and distinct functions of a digipeater
field no matter how we finally implement APRS-IS... The digipeater field
consists of TWO items. Those items must remain separate and distinct
throughout APRS, and AX.25, and APRS-IS.

> >I hope I can convince you that we must preserve the state
> >of the has-been-digipeated-bit in all ASCII representations of an AX.25
> >header if we are to make any future improvements on APRS routing.
>
> See my above comment - "It constrains nothing..."

I say it completely destroys the integrity of the AX.25 digipeater header
construct and/or is a poor way to build a system based on assumed
inferences and lost path usage data.

> I'm not throwing away anything. All the path info is there whether or
> not you put in the '*'(s).

No it is not. The indicator of whether or not these fields have been used
or not is NOT there. From that point on, there is no way to construct
whether those fields have been USED or not, or substituted. Thus they are
stuck ambiguous baggage that cannot be used for any future determination
as to whether they should be discarded or not..

> Packets aren't going to "drop off" the
> internet onto RF, they are going to be gated by intelligent systems.

This is, I fear, an assumption that we should never make. Intelligent
systems all the time do rediculuous and unwanted things, and especially in
the APRS anarchy... We must not design a system that contains

ambiguities and lost usage indicators. Using digipeater fields and
discarding or making no provision for whether the field has been used or
not is a recipe for disaster.. (or our current stagnation).

> Those systems will either understand MYGATE(*),I(*) or they won't.
> If they don't, then it is possible that an incorrect RF path would be
> assumed if you put in the '*'(s).

That is why we must avoid assumptions and standardize on the TAPR2 header
with ALL has-been-used marks INTACT. This is the only complete,
unambiguous, AX.25 header ASCII conversion that we should be considering.

The reason we couldnt do this in the past was because a lot of packets
were injected into APRS-IS directly from TNC's without any processing.
As we now move into PARSING ALL INCOMING packets for injection to the
APRS-IS, we must also strengthen and be explicit in the accounting of the
has-been-digipeated-bits.

I dont disagree with you that it can be made to work without the *'s, but
I just seriously question why we seem to be intent on making a system that
will just "work" while throwing out perfectly good usable single BITS that
are so valuable because they dont seem to meet our immediate urgent need.

I have prepared a DRAFT APRS-IS version 1.0 (through 2.0) spec. I would
appreciate your input as to any version 1.0 tidbits that I may have
glossed over:

http://www.ew.usna.edu/~bruninga/aprs-is.txt

Thanks!

de WB4APR, Bob

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49. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 24 May 2002 19:35:39 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81005-2002.05.24-20.11.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Friday, May 24, 2002 6:41 PM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> I have prepared a DRAFT APRS-IS version 1.0 (through 2.0)
> spec. I would
> appreciate your input as to any version 1.0 tidbits that I may have
> glossed over:
>
http://www.ew.usna.edu/~bruninga/aprs-is.txt

Good work, Bob. However, there are a couple of things that should be
considered about APRS-IS 1.0. First, as discussed, IGates could and, I
think we agree, should pass the payload of a third-party packet into
APRS-IS if that packet did not originate from APRS-IS. APRS-IS 1.0
simply says "no third-party packets shall be transported on the
Internet." What this means is that no packets with a data type of }
will appear on the Internet feed. Once an IGate strips the AX.25 header
and } from a third-party packet, it is now "legal" to be transported via
APRS-IS. Current IGates have implemented a simpler filter, which we all
agree, should be less restrictive by keying on the TCPIP or TCPXX in the
third-party header instead of the } data type. Of course, everything
before and including the } should not appear on the APRS-IS or any other
non-AX.25 network.

APRS-IS does not require that the headers meet AX.25 specifications.
For example, 9 character callsigns, character SSID's, 9+ via, etc.
Within the framework of a third-party packet, there is no problem with
this. However, this is definitely not compatible with the idea of
gating back to RF in non-third-party format. Also, a legal AX.25 packet
may enter APRS-IS but not have enough room for all of the header

insertions suggested to be done at the IGates and have an outbound path.
I fully believe that you actually start crippling APRS-IS if you force
the headers to be completely compliant with AX.25 requirements.

The third-party packet specification is a good specification from the
standpoint of identifying where the packets came from. It leaves the
non-AX.25 network free to support valid APRS packets that might not,
after multiple different network traversals, meet the AX.25 header
requirements. It also allows for more than 16 stations to exist for a
single callsign in the world.

Do you really want to restrict APRS-IS to only support the restrictive
AX.25 header specification? As I have said before, I like the idea of
having a full path history in the packet, including the callsign of the
insertion IGate. But, very quickly, you run out of via as specified in
APRS-IS. You also force non-RF APRS applications to adhere to the AX.25
naming requirements. Why don't we leave this flexible, too?

It is generally agreed that APRS-IS only supports 9 letter
callsign-SSID's, but most of the server and IGate code that I am aware
of allows those 9 letters to be any combination of letters, digits,
and/or a hyphen. You are asking a large number of APRS operators to
completely rethink how they interact on the Internet.

The third-party packet is a simple, yet very effective way to allow
multiple APRS networks to communicate without the burdensome
restrictions of AX.25 limits while being carried on another network.
However, with those restrictions removed, it forces those packets to be
reintroduced to an AX.25 network using a mechanism such as the
third-party packet.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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50. [aprsspec] RE: Injecting IGate identification

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 25 May 2002 08:39:19 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81062-2002.05.25-03.19.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-80995-2002.05.24-19.15.58--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
[snip]
>We should not be building a network routing system based on assumptions
>and inferences and ambiguous routing indicators. Every DIGIPEATER field
>in AX.25 indicates TWO separate and distinct functions:
>
> 1) An INTENDED ROUTE,
> 2) A mark as to whether that ROUTE was used
>
>These two separate and distinct functions must never be blurred.

But you are blurring them -

G4IDE>APRS,RELAY,WIDE,MYGATE*,I

by any *normal* interpretation means that the frame has travelled via
RELAY, WIDE and MYGATE. In fact it has gone straight from G4IDE to
MYGATE.

[Big snip]

>That is why we must avoid assumptions and standardize on the TAPR2 header
>with ALL has-been-used marks INTACT. This is the only complete,
>unambiguous, AX.25 header ASCII conversion that we should be considering.

But what you are doing is not unambiguous, you are going to create a
frame header than lies about the RF path, unless it is analysed in a
non-standard way that takes account of the special meaning of the last

two digis.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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51. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 25 May 2002 09:07:42 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81083-2002.05.25-08.43.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 24 May 2002, AE5PL Lists wrote about the APRS-IS draft spec:

> Good work, Bob. However, there are a couple of things that should be
> considered about APRS-IS 1.0. First, as discussed, IGates could and, I
> think we agree, should pass the payload of a third-party packet into
> APRS-IS if that packet did not originate from APRS-IS.

Yes, but I wouldnt call that 1.0 since it does not exist now. I call that
APRS-IS 1.2. for clarity...
>
> APRS-IS does not require that the headers meet AX.25 specifications.
> this. However, this is definitely not compatible with the idea of
> gating back to RF in non-third-party format. Also, a legal AX.25 packet
> may enter APRS-IS but not have enough room for all of the header
> insertions suggested to be done at the IGates and have an outbound path.

That is why I propose that all headers be reduced to the 7 hop model that
I proposed:

      First field: RF source digi
      2nd field: RF WIDEn-N number of hops
      3rd field: Injecting Igate
      4th field: I or I* deoending on validation or not
      5th field: IS-2-RF Igate
      6th Field: RF-re-insertion digi
      7th field: RF Widen-N number of hops

Every packet that traverses the IS RFend-2-RFend can fit that model.
And it gives full traceabilty.

> Do you really want to restrict APRS-IS to only support the restrictive
> AX.25 header specification?

It seems like something worth trying.

> As I have said before, I like the idea of having a full path history in
> the packet, including the callsign of the insertion IGate. But, very
> quickly, you run out of via as specified in APRS-IS. You also force
> non-RF APRS applications to adhere to the AX.25 naming requirements.
> Why don't we leave this flexible, too?

Notice that in my specification, the 3rd party format may ALWAYS be uesd
for all the flexibility and total of 16 possible path hops if needed. It
is never obsoleted. In fact, it is strengthened by being able to be used
ANYWHERE for any unfortold purpose as well as its current use.

> It is generally agreed that APRS-IS only supports 9 letter
> callsign-SSID's, but most of the server and IGate code that I am aware
> of allows those 9 letters to be any combination of letters, digits,
> and/or a hyphen. You are asking a large number of APRS operators to
> completely rethink how they interact on the Internet.

All of these constructs remain perfectly viable as they are now since the
3rd party format may forever still be used to ship any non-compliant
packet anywhere...

> The third-party packet is a simple, yet very effective way to allow
> multiple APRS networks to communicate without the burdensome
> restrictions of AX.25 limits while being carried on another network.

> However, with those restrictions removed, it forces those packets to be
> reintroduced to an AX.25 network using a mechanism such as the
> third-party packet.

Yes, and it may continue to be used that way.

What I am talking about is a compatible option for handling
all those other packets that dont need these non-compliant constructs.
Both can work independently in the APRS-IS...

De wb4apr, bob

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52. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 09:08:04 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81094-2002.05.25-09.43.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Saturday, May 25, 2002 8:10 AM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> That is why I propose that all headers be reduced to the 7
> hop model that
> I proposed:
>
>   First field: RF source digi
>   2nd field: RF WIDEn-N number of hops
>   3rd field: Injecting Igate
>   4th field: I or I* deoending on validation or not
>   5th field: IS-2-RF Igate
>   6th Field: RF-re-insertion digi
>   7th field: RF Widen-N number of hops
>
> Every packet that traverses the IS RFend-2-RFend can fit that model.
> And it gives full traceabilty.

How? If the packet is received as
CALL1>APRS,DIGI1,DIGI2,DIGI3,DIGI4*,DIGI5 your model will lose all of
the prior RF path to DIGI4 thereby causing CALL1 to not know how their
packet got to the Internet. If you do this stripping at the injection
point, that information is lost for good.

> > Do you really want to restrict APRS-IS to only support the
> restrictive
> > AX.25 header specification?
>
> It seems like something worth trying.

I don't understand why you want to reduce the flexibility of APRS-IS.

> Notice that in my specification, the 3rd party format may
> ALWAYS be uesd
> for all the flexibility and total of 16 possible path hops if
> needed. It
> is never obsoleted. In fact, it is strengthened by being
> able to be used
> ANYWHERE for any unfortold purpose as well as its current use.

But it is also weakened by saying "sometimes" an IGate will not use the
third-party format.

> All of these constructs remain perfectly viable as they are
> now since the
> 3rd party format may forever still be used to ship any non-compliant
> packet anywhere...

But then you are saying that the IGate using packet regeneration must
also support third-party format. If that is the case, why bother
increasing the complexity of operations which packet regeneration would
do. Why not stick with a simple, straight-forward approach which you

already have with third-party packets?

> What I am talking about is a compatible option for handling
> all those other packets that dont need these non-compliant constructs.
> Both can work independently in the APRS-IS...

But you are increasing the complexity of the IGate tremendously. And if
the IGate that is doing the packet regeneration must also do third-party
packets, where is there any gain?

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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53. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 25 May 2002 12:46:00 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81126-2002.05.25-12.21.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, Roger Barker wrote:

> >and inferences and ambiguous routing indicators. Every DIGIPEATER field
> >in AX.25 indicates TWO separate and distinct functions:
> >
> > 1) An INTENDED ROUTE,
> > 2) A mark as to whether that ROUTE was used
> >
> >These two separate and distinct functions must never be blurred.
>
> But you are blurring them -
>
> G4IDE>APRS,RELAY,WIDE,MYGATE*,I
>
> by any *normal* interpretation means that the frame has travelled via
> RELAY, WIDE and MYGATE. In fact it has gone straight from G4IDE to
> MYGATE.

Ah, but that is why I want to change it. Your example above is the
crippled TAPR2 version I want to fix by moving towards the standard that
ALL has-been-digipeated bits are marked always in ASCII path
representations and standardize on that. APRS does not require and in
many cases does not use sequential HOP processing. We must preserve the
has-been-digipeated bits (shown as a *) to keep up with APRS and not be
tied into the point-to-point legacies of 1980's connected packet.

> >That is why we must avoid assumptions and standardize on the TAPR2 header
> >with ALL has-been-used marks INTACT. This is the only complete,
> >unambiguous, AX.25 header ASCII conversion that we should be considering.
>
> But what you are doing is not unambiguous, you are going to create a
> frame header than lies about the RF path, unless it is analysed in a
> non-standard way that takes account of the special meaning of the last
> two digis.

I guess I dont follow your example. The standard I want is that ALL
ASCII headers forwarded into the APRS-IS will have either a * meaning the
path was "used" or not, indicating it was an unused path. Then we can
strip off unused paths if we want for brevity...

Again, the reason we have this golden opportunity now is that ALL authors
seem to agree that we must pre-process headers going INTO the APRS-IS and
can no longer afford to just accpet ANYTHING. We have to process the
header anyway to insert the MYGATE*,I so we may as well take the best,
non-ambiguous method at this point and all agree to use it.

I propose the standard that all ASCII path headers are in TAPR2 format
including the marking of ALL has-been-used bits with a *. This is part of
APRS-IS version 1.1. I agree with you completely that what we are using

now, the classic TAPR2 version with suppressed *'s is completely
ambiguous. THus we must move on.. and use an unambiguous standard...

Thanks.
Bob

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54. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 25 May 2002 13:07:25 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81131-2002.05.25-12.43.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, AE5PL Lists wrote:

> > From: Bob Bruninga [mailto:bruninga@usna.edu]
> > That is why I propose that all headers be reduced to the 7
> > hop model that I proposed:
> >
> >   First field: RF source digi
> >   2nd field: RF WIDEn-N number of hops
> >   3rd field: Injecting Igate
> >   4th field: I or I* deoending on validation or not
> >   5th field: IS-2-RF Igate
> >   6th Field: RF-re-insertion digi
> >   7th field: RF Widen-N number of hops
> >
> > Every packet that traverses the IS RFend-2-RFend can fit that model.
> > And it gives full traceabilty.
>
> How? If the packet is received as
> CALL1>APRS,DIGI1,DIGI2,DIGI3,DIGI4*,DIGI5 your model will lose all of
> the prior RF path to DIGI4 thereby causing CALL1 to not know how their
> packet got to the Internet. If you do this stripping at the injection
> point, that information is lost for good.

I dont follow your example at all? Where are you talking about "received
as"? If you mean at the injection point, then the above packet "could"
be stripped down to only DIGI1*,HOPS4*,IJGATE*,I going into the APRS-IS.
It retains everything I need to know:

   1) Where the packet entered the RF system (DIGI1*)
   2) How many hops it took to get to the IGate (HOPS4*)
   3) What IGate injected it into the APRS-IS (IJGATE*)
   4) And the fact that it was then injected into the APRS-IS (,I)

Now at the other end, (remember, 3rd party format may still be used...)
OR, the RGATE that passes it back to RF can use KISS mode and put it back
on RF as follows:

   FROM>TO,DIGI1*,HOPS4*,IJGATE*,I*,RGATE*,DIGIz,WIDEn-N:data

This path arrives with all of the important parts of its path history
intact... and it is a fully compliant AX.25 header to boot...

> I don't understand why you want to reduce the flexibility of APRS-IS.

I think you are stll completely missing the point. I am not reducing the
flexibility, but expanding it!. ALL of the old formats are still
possible. The old 3rd party format may continue to be used as long as
anyone has a need for it. I am only coming up with added felxibility to
allow other processes (that are more efficient) to work also... The 3rd
party format is still allowed as we have previously discussed and in fact
is strengthened because it can be used incomming too...

> But it is also weakened by saying "sometimes" an IGate will not use the
> third-party format.

Wht is that a weakening? It is a strengthening of the APRS-IS to handle
both...
>

> > All of these constructs remain perfectly viable as they are
> > now since the
> > 3rd party format may forever still be used to ship any non-compliant
> > packet anywhere...

> But then you are saying that the IGate using packet regeneration must
> also support third-party format.

Because EVERY APRS process should support 3rd party anyway. It has
allways been a fundamental part of APRS and I think everyone does already
support it.

> If that is the case, why bother increasing the complexity of operations
> which packet regeneration would do. Why not stick with a simple,
> straight-forward approach which you already have with third-party
> packets?

Because it is not increasing complexity, but the opposite. What is
simpler than using KISS to regenerate a packet and eliminate the overhead
of packets within packets?

> > What I am talking about is a compatible option for handling
> > all those other packets that dont need these non-compliant constructs.
> > Both can work independently in the APRS-IS...

> But you are increasing the complexity of the IGate tremendously. And if
> the IGate that is doing the packet regeneration must also do third-party
> packets, where is there any gain?

Because the current system is broken and is falling apart with no source
acountability and with ever increasing entropy. Anything worth doing is
not necessarily supposed to be the easiest way. I think it is time to
move out with an improved system.

de WB4APR@amsat.org, Bob

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55. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 13:38:20 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81147-2002.05.25-14.14.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Saturday, May 25, 2002 12:09 PM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> as"? If you mean at the injection point, then the above
> packet "could"
> be stripped down to only DIGI1*,HOPS4*,IJGATE*,I going into
> the APRS-IS.
> It retains everything I need to know:

But it does not provide a true routing history of the packet. If
someone wanted to reduce the dependence on generic digipeating to
message with someone, your method precludes that from happening. It
also puts a stumbling block in the way of people trying to create
routing devices or applications for APRS.

> Because it is not increasing complexity, but the opposite. What is
> simpler than using KISS to regenerate a packet and eliminate
> the overhead
> of packets within packets?

But you ARE adding a layer of complexity by now saying there are two
ways for a packet to be reintroduced into the AX.25 world. And, you are
adding complexity for the reintroducing IGate to differentiate between
those packets that can be regenerated and those that can't. And what
overhead do you save? The FROMCALL of the IGate and a } data type? I
don't think 10 bytes is worth the added complexity you would be
introducing.

> Because the current system is broken and is falling apart
> with no source
> acountability and with ever increasing entropy. Anything
> worth doing is
> not necessarily supposed to be the easiest way. I think it is time to
> move out with an improved system.

How is it broken? There are problems, yes. But your proposal of adding another layer of complexity does nothing to fix those problems. The problems are primarily related to IGate software which do not handle current packets properly. The APRS-IS system is finally beginning to stabilize. Worldwide communication between local RF environments is possible. Let's push to have the IGate authors fix what they have today. Let's not try to force them into trying to account for another layer of complexity which would remove routing information from the header.

Adding the ",MYCALL,I*" at the injection point to a header after trimming non-used digis is a nice enhancement for traceability. Trimming out used digis reduces traceability and renders routing algorithms useless. Nothing is gained by using KISS to regenerate a packet if the IGate still needs to interpret the packet and possibly send it as a third-party packet. And, nothing is gained by using KISS if the RF path desired takes more than 2 distinct hops.

On the surface, KISS packet regeneration is a good idea. However, when the ramifications of the increased complexity of IGates having to interpret 2 different types of packet routes, of reduced routing information, and of maintaining support for non-AX.25 compliant headers is accounted for, I don't think 10 bytes of packet overhead is worth it.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

56. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 14:25:44 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81160-2002.05.25-15.01.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: AE5PL Lists
> Posted At: Saturday, May 25, 2002 1:39 PM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> another layer of complexity does nothing to fix those problems. The
> problems are primarily related to IGate software which do not handle
> current packets properly. The APRS-IS system is finally beginning to

By the way, IMO IGate software is currently the most complex and difficult APRS application to write. The IGate authors have had to "make it up as they go" for the most part and the logic is not trivial. I think they have done an excellent job of getting their software to play well under the varied environments that exist. I do not want to see their job made harder by adding more variables into their already complex equation.

I would say that 90% of the problems seen on APRS-IS have been IGate caused (mangled packets, Mic-E conversions, etc.) and improper server configurations (servers randomly interconnected, using wrong ports, etc.). The first is being actively worked on by the IGate authors. The second gets worked on as they occur. I am attempting to help avoid the second with javAPRSSrvr by doing the initial configuration for each user. I also make sure that it goes to a licensed ham for verification purposes.

73,

Pete Loveall AE5PL
http://www.ae5pl.net

mailto:pete@ae5pl.net

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57. [aprsspec] Another IStream Validation Approach

From: "Ev Tupis (W2EV)" <w2ev@rochester.rr.com>
Date: Sat, 25 May 2002 21:39:37 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81179-2002.05.25-21.15.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

If I understand how things work now, it appears that Internet Stream
validation could be accomplished simply and effectively, without the need
for massive overhauls of the client-side software.

Think through a system whereby the frame validation takes place at the
Internet Server. All Internet traffic flows through them anyway, right? It
seems like a natural place to implement it and has the added advantage of
not affecting any existing client-side software systems.

Then angain...I may be restating a solution that was previously considered
or thrown away for reasons I'm unaware of.

Ev Tupis, W2EV
--
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

58. [aprsspec] Path Auditing through the IStream

From: "Ev Tupis (W2EV)" <w2ev@rochester.rr.com>
Date: Sat, 25 May 2002 22:04:33 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81184-2002.05.25-21.40.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

There is a great value in knowing where a frame entered and exited the
IStream. Please, as the discussion on validation continues, keep in mind
that it would be good to assure full path-auditing.

```
Launched                        : WB4APR>RELAY,WIDE5-5:...
1st Digipeat                    : WB4APR>DIGI1,WIDE5-5:...
2nd DIgipeat                    : WB4APR>DIGI1,DIGI2,WIDE5-4:...
IGATE RX'd and passed to IStream: WB4APR>DIGI1,DIGI2,IGATE,WIDE5-4:...
RGATE sends IStream frame to RF : WB4APR>DIGI1,DIGI2,IGATE,RGATE,WIDE5-4:
```

Also...include logic to avoid unanticipated violation of AX.25 protocol:

```
Launched: WB4APR>RELAY,TRACE5-5:...
Digipeat: WB4APR>DIGI1,TRACE5-5:...
Digipeat: WB4APR>DIGI1,DIGI2,TRACE5-4:...
IGATE   : WB4APR>DIGI1,DIGI2,IGATE,TRACE5-4:...
RGATE   : WB4APR>DIGI1,DIGI2,IGATE,RGATE,TRACE5-2:...
                                           ^
                               Modified by RGATE to assure a max
                               of 7 'hops' to assure no violation of
                               AX.25 protocol.
Digipeat: WB4APR>DIGI1,DIGI2,IGATE,RGATE,DIGI3,TRACE5-1:...
Digipeat: WB4APR>DIGI1,DIGI2,IGATE,RGATE,DIGI3,DIGI4,TRACE5:...
```

Simply stating a need. There are probably many ways to do it. :o)

Kind regards,
Ev, W2EV
--
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

59. [aprsspec] RE: Another IStream Validation Approach

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 21:11:05 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81185-2002.05.25-21.46.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Validation already takes place at the APRS-IS server. The issue is
regarding the validation algorithm being public domain.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Ev Tupis (W2EV) [mailto:w2ev@rochester.rr.com]
> Posted At: Saturday, May 25, 2002 8:41 PM
> Subject: [aprsspec] Another IStream Validation Approach
>
> Think through a system whereby the frame validation takes place at the
> Internet Server. All Internet traffic flows through them

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

60. [aprsspec] RE: Path Auditing through the IStream

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 21:15:48 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81186-2002.05.25-21.51.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev,

The AX.25 limit of 8 callsigns in the path is not an issue today as
packets are gated to RF using third-party packet format. Third-party
packets allow the AX.25 restrictions to be adhered to on both RF sides,
but allows the flexibility to add the IGate information you seek into
the third-party header (see chapter 17 in the spec). The IGate that
gates to RF is already identified per third-party packet rules.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Ev Tupis (W2EV) [mailto:w2ev@rochester.rr.com]
> Posted At: Saturday, May 25, 2002 9:06 PM
> Subject: [aprsspec] Path Auditing through the IStream
>
> There is a great value in knowing where a frame entered and exited the
> IStream. Please, as the discussion on validation continues,
> keep in mind
> that it would be good to assure full path-auditing.
>
> Also...include logic to avoid unanticipated violation of
> AX.25 protocol:

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61. [aprsspec] RE: Path Auditing through the IStream

From: "Ev Tupis (W2EV)" <w2ev@rochester.rr.com>
Date: Sat, 25 May 2002 22:30:27 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81189-2002.05.25-22.06.45--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

AE5PL Lists wrote:
> The AX.25 limit of 8 callsigns in the path is not an issue today as
> packets are gated to RF using third-party packet format. Third-party
> packets allow the AX.25 restrictions to be adhered to on both RF sides,
> but allows the flexibility to add the IGate information you seek into
> the third-party header (see chapter 17 in the spec). The IGate that
> gates to RF is already identified per third-party packet rules.

I just connected to AHubEast, and in 30-seconds had a ton of APRS stations
on my map. I double-click on a station in California and this is what I get
for a path:

KE6NYT-14>GPSLK,RELAY,WIDE,WIDE,WIDE:
$GPRMC,022131,A,3411.942,N,11911.128,W,000.0,262.4,260502,014.1,E*68

>From the raw data, had I not been attached to the AHubEast, I'd think that
the band was open coast-to-coast. I see a callsign, no call
substitution...as far as I can tell, this frame made it from California to
NY -- simplex.

If the IStream path is preserved somewhere, how do I get to see it?

Asking from ignorance.
Ev, W2EV
--
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62. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 25 May 2002 23:06:32 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81192-2002.05.25-22.42.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, AE5PL Lists wrote:

> Bob Said:
> > If you mean at the injection point, then the above packet "could" be
> > stripped down to only DIGI1*,HOPS4*,IJGATE*,I going into the APRS-IS.
> > It retains everything I need to know:
>
> But it does not provide a true routing history of the packet. If
> someone wanted to reduce the dependence on generic digipeating to
> message with someone, your method precludes that from happening. It
> also puts a stumbling block in the way of people trying to create
> routing devices or applications for APRS.

This part of the discussion, I thought was trying to address how we
handle the fact (that we all agree) is that there just will never be
enough room to keep the entire path intact end-to-end or the packet
becomes so long as to be impractical. I agree completely that I would
like to see the entire path, but in practical terms, I see that as
impossible. SO my idea above is simply my offering of a way to preserve
the most important part (the entry points and number of hops) and move
on...

> > Because it is not increasing complexity, but the opposite. What is
> > simpler than using KISS to regenerate a packet and eliminate
> > the overhead of packets within packets?
>
> But you ARE adding a layer of complexity by now saying there are two
> ways for a packet to be reintroduced into the AX.25 world. And, you are
> adding complexity for the reintroducing IGate to differentiate between
> those packets that can be regenerated and those that can't. And what
> overhead do you save? The FROMCALL of the IGate and a } data type? I
> don't think 10 bytes is worth the added complexity you would be
> introducing.

So what are you saying? We just dont do anything and leave the system as
it is? I agree that I am adding something to the system. So?

I see lots of benefits out of it, I dont see that you are necessarily
pointing out any problems with it, other than it is adding an additional
construct... So?

> How is it broken? There are problems, yes. But your proposal of adding
> another layer of complexity does nothing to fix those problems.

It sure seems to me like it has the potential to fix all the problems if
we figure out how to do it right...

> The problems are primarily related to IGate software which do not handle
> current packets properly. The APRS-IS system is finally beginning to
> stabilize. Worldwide communication between local RF environments is
> possible. Let's push to have the IGate authors fix what they have
> today.

That is exactly the probelm I am trying to fix. The problem is that we
have NO common AGREED-TO standard of how to "handle-current-packets-
properly" Your statement is like the age-ole' "buy low, sell high"
advice for the stockmarket... Everyone agrees 100% that that is what is
needed for success   in the stock market, its just that no one knows how
to do it...

> Let's not try to force them into trying to account for another
> layer of complexity which would remove routing information from the
> header.

OK, so what do you propose to handle complete paths end-to-end?

> Adding the ",MYCALL,I*" at the injection point to a header after
> trimming non-used digis is a nice enhancement for traceability.
> Trimming out used digis reduces traceability and renders routing
> algorithms useless.

I thought it was a given that we cannot possible preserve all hops
end-to-end. In fact the APRS-IS currently throws away ALL source path
information! So how can you argue against my proposal which preserves the
important parts and insist that we stick with what we have because my
proposal does not preserve ALL of it? This just does not compute?

> Nothing is gained by using KISS to regenerate a packet if the IGate
> still needs to interpret the packet and possibly send it as a
> third-party packet. And, nothing is gained by using KISS if the RF path
> desired takes more than 2 distinct hops.

I disagree with both statements. And even if nothing was gained in some
unique situations, then the Igate can simply not use KISS if it thinks 3rd
party is better. We are not saying that anyone needs to move to KISS.
The proposal only says it will be possible.. So, dont use kiss if you
dont want to. Its an option for those that want to save the 16 Bytes on
RF in every APRS-IS-to-RF packet.

> On the surface, KISS packet regeneration is a good idea. However, when
> the ramifications of the increased complexity of IGates having to
> interpret 2 different types of packet routes, of reduced routing
> information, and of maintaining support for non-AX.25 compliant headers
> is accounted for, I don't think 10 bytes of packet overhead is worth it.

Its 16 bytes or so. ANd all APRS software currently has to handle dozens
of formats. KISS mode adds ZERO complexity, because it is NOTHING new.
a KISS packet is 100% indistinguishible from any packet on the air to day.
If your software can handle ANY ax.25 packet you har right now, then it
already can handle ANY kiss packet. That is the beauty of it, in that it
makes the APRS-IS seamless to existing protocol...

de WB4APR@amsat.org, Bob

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63. [aprsspec] RE: Path Auditing through the IStream

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 22:12:42 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81194-2002.05.25-22.48.29--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Currently, most IGates do not modify the RF->Internet headers. We have
had an extensive discussion about that over the last 3 days on this SIG.
It has been generally agreed that it would be good to have the
RF->APRS-IS IGate trim the header per the APRS spec for third-party
header trimming (chapter 17) and then append MYCALL,I*. The I* means
you are seeing the packet being digi'ed by the Internet. The call
preceding the I is the call of the injecting IGate.

Other than that, however, there is no differentiation between packets
received via RF and packets on APRS-IS. Most client software gives you
the capability to distinguish between packets received via the Internet
and those packets received from RF. One of the beauties of APRS-IS is
the fact that it doesn't change the packets, allowing for very clean
insertion back to RF, if necessary, using the third-party packet format.

In essence, you do have a band opening. It just happens that it is via
the Internet :)

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Ev Tupis (W2EV) [mailto:w2ev@rochester.rr.com]
> Posted At: Saturday, May 25, 2002 9:32 PM
> Subject: [aprsspec] RE: Path Auditing through the IStream
>
> From the raw data, had I not been attached to the AHubEast,
> I'd think that
> the band was open coast-to-coast. I see a callsign, no call
> substitution...as far as I can tell, this frame made it from
> California to
> NY -- simplex.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

64. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 22:35:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81202-2002.05.25-23.11.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Saturday, May 25, 2002 10:08 PM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> This part of the discussion, I thought was trying to address how we
> handle the fact (that we all agree) is that there just will never be
> enough room to keep the entire path intact end-to-end or the packet

No, the third-party packet format DOES let us keep the entire path
intact.

> So what are you saying? We just dont do anything and leave
> the system as
> it is? I agree that I am adding something to the system. So?
> I see lots of benefits out of it, I dont see that you are necessarily
> pointing out any problems with it, other than it is adding an
> additional
> construct... So?

You are telling the IGate programmers that they now have to parse EVERY
packet for I, or TCPIP, or TCPXX, not just third-party packets. Bob,
the algorithms become very complex very quickly.

> It sure seems to me like it has the potential to fix all the
> problems if
> we figure out how to do it right...

What problems does this fix? I fail to see one problem that this would
address. I do see some problems it could introduce.

> That is exactly the probelm I am trying to fix. The problem
> is that we
> have NO common AGREED-TO standard of how to "handle-current-packets-
> properly" Your statement is like the age-ole' "buy low, sell high"

We DO have a common AGREED-TO standard. It is the third-party packet standard defined in Chapter 17 of the spec and the APRS spec, as a whole. The problem with packets not being handled correctly by some versions of IGate software stem primarily from interpreting various TNC settings or Mic-E packets, not APRS packets in general. The Mic-E problems are being addressed by the removal of Mic-E conversion (first put in to help accommodate findu.com). The TNC problems will always be there as long as different TNC's exist. The software writers have done a good job of tackling those issues when they come up.

> OK, so what do you propose to handle complete paths end-to-end?

Third-party packets.

> I thought it was a given that we cannot possible preserve all hops
> end-to-end. In fact the APRS-IS currently throws away ALL source path
> information! So how can you argue against my proposal which

APRS-IS does no such thing! APRS-IS, currently, preserves the ENTIRE source path, possibly to a fault. It is NOT a given that we cannot preserve all hops, end-to-end. We do it today using third-party packets. The only thing missing is identification of the IGate that injects a packet from RF to APRS-IS. And that would be covered by the addition of MYCALL,I*.

> The proposal only says it will be possible.. So, dont use kiss if you
> dont want to. Its an option for those that want to save the
> 16 Bytes on
> RF in every APRS-IS-to-RF packet.

But then every IGate can no longer assume that a non-third-party packet is from RF. There isn't enough APRS-IS to RF activity to justify adding this level of complexity to save 16 bytes for some packets (I still don't see where you get 16) by someone who might do this in the future.

> Its 16 bytes or so. ANd all APRS software currently has to
> handle dozens
> of formats. KISS mode adds ZERO complexity, because it is

Not true. You add the complexity of no longer having a definite indicator of an Internet originated packet. Today, we do. It is a third-party packet with TCPIP in the third-party header.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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65. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 25 May 2002 22:50:08 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81204-2002.05.25-23.25.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: AE5PL Lists
> Posted At: Saturday, May 25, 2002 10:37 PM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> You are telling the IGate programmers that they now have to
> parse EVERY
> packet for I, or TCPIP, or TCPXX, not just third-party packets. Bob,
> the algorithms become very complex very quickly.

This also affects all client software today that differentiates between

gated and RF direct packets. Is it really worth asking all software
authors to re-write their packet parsing code to accommodate the
possibility that someday, someone might not use third-party packets to
inject a gated packet into the VHF network? What we have today works.
There is nothing wrong with it. Adding the possibility of gated packets
appearing as regular packets gains nothing other than adding another
level of complexity to already complex programs.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

66. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 00:45:51 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81224-2002.05.26-00.21.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, AE5PL Lists wrote:

> > From: Bob Bruninga [mailto:bruninga@usna.edu]

> > If you mean at the injection point, then the above packet "could" be
> > stripped down to only DIGI1*,HOPS4*,IJGATE*,I going into the APRS-IS.
> > It retains everything I need to know:
>
> But it does not provide a true routing history of the packet.

After some thought, I realize that I think we are in violent agreement.
The path "condensation" technique I propose above only takes place when
the packet must be routed back to RF. That is when my 7-hop model kicks
in. I may not have presented it well. When the path is injected into the
APRS-IS it remains in full with only ",IJGATE,I" tacked onto the end.
Thus it is available thorughout APRSdom with full path intact.

It is only when processes need to shorten the path that then my 7 Hop
model kicks in to provide a standard technique. This only occurs when
the packet goes back to RF. In this sense, it is far better than the
current APRS-IS technique of eliminating the ENTIRE path.

de WB4APR@amsat.org, Bob

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67. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 01:01:56 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81226-2002.05.26-00.37.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, AE5PL Lists wrote:

> By the way, IMO IGate software is currently the most complex and
> difficult APRS application to write. The IGate authors have had to
> "make it up as they go" for the most part and the logic is not trivial.

Yes, that is exactly the problem I am trying to solve. If we put down an
END goal and a phased plan to get there, then we solve that problem.

> I think they have done an excellent job of getting their software to
> play well under the varied environments that exist. I do not want to
> see their job made harder by adding more variables into their already
> complex equation.

>
> I would say that 90% of the problems seen on APRS-IS have been IGate
> caused (mangled packets, Mic-E conversions, etc.) and improper server
> configurations (servers randomly interconnected, using wrong ports,
> etc.).

That is exactly the point. With every author doing his best to define
what the APRS-IS is and with no written guidance to a common standard, we
have everyone working hard in different directions and only making things
worse instead of better.

> The first is being actively worked on by the IGate authors. The
> second gets worked on as they occur.

But what is their guidance? It is EASY to write code as long as one knows
for sure where he is going and what is is end objective. It is impossible
to write code that works reliabably with everyone else wehn everyone else
is not necessarily working to the same end objective..

de WB4APR@amsat.org, Bob

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68. [aprsspec] RE: Path Auditing through the IStream

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 01:45:47 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81243-2002.05.26-01.21.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, AE5PL Lists wrote:

> Currently, most IGates do not modify the RF->Internet headers. We have
> had an extensive discussion about that over the last 3 days on this SIG.
> It has been generally agreed that it would be good to have the
> RF->APRS-IS IGate trim the header per the APRS spec for third-party
> header trimming (chapter 17) and then append MYCALL,I*. The I* means
> you are seeing the packet being digi'ed by the Internet. The call
> preceding the I is the call of the injecting IGate.

Im a little behind on email, but just to clarify my proposal, I dont want
to trim any path information going into the APRS-IS. That is where we
have the bandwidth and want to see everything. The path "condensation"
process I suggested is only when (or if) a path needs to be truncated when
it goes back to RF... Bob

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69. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 02:30:21 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81267-2002.05.26-02.06.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, AE5PL Lists wrote:

> Bob said:
> > This part of the discussion, I thought was trying to address how we
> > handle the fact (that we all agree) is that there just will never be
> > enough room to keep the entire path intact end-to-end or the packet
>
> No, the third-party packet format DOES let us keep the entire path
> intact.

Huh? I don't follow your logic. Here is the way it looks to me:

1) The current APRS-IS currently truncates ALL source path data in
   its use of 3rd party IS-2-RF. (I want something less restrictive)

2) The current 3rd party format adds 16 bytes to an already very long
   header. (I want to make it possible to eliminate those bytes (if we
   want to))...

> You are telling the IGate programmers that they now have to parse EVERY
> packet for I, or TCPIP, or TCPXX, not just third-party packets. Bob,
> the algorithms become very complex very quickly.

Realy? I dont consider the following line of code "very complex":

 If instr(packet$,"TCPIP") or INSTR(Packet$,"I") then IGNORE.

That does the entire job in one line. I left out the TCPXX because as
steve poitned out, that should never appear on RF in the first place.
(Although I as a programmer would definately put it in, becasue there
never is such as thing as "never")...

> > It sure seems to me like it has the potential to fix all the
> > problems if we figure out how to do it right...
>
> What problems does this fix? I fail to see one problem that this would
> address. I do see some problems it could introduce.

The #1 problem the proposal solves is that it gives a single
common objective for APRS-IS code writers (currently there is none).
Further it provides for:

1) Injecting IGate identification (The main shortcoming of APRS-IS 1.0)

2) Defines a single standard for ASCII Header representation including
   the preservation of the HAS-BEEN-USED bit in the AX.25 digi fields

3) It provides for PATH PRESERVATION end-to-end for reasonable packets

4) It provides for a standard PATH CONDENSATION method that preserves all
   points of entry both in the RF and APRS-IS domain end-to-end if
   size limitations are exceeded

5) It is fully AX.25 on-air compatible.

6) It moves the basis for APRS-IS loop filtering to be based on actual
   path data through the APRS-IS instead of basing it on a second order
   format definition byte which is not unique to the APRS-IS and is
   therefore currently ambiguous...

7) It allows for future KISS mode implementations for seamless RF-IS-RF
   and any other potential non-RF linkages.

> > the probelm I am trying to fix. The problem
> > is that we
> > have NO common AGREED-TO standard of how to "handle-current-packets-
> > properly" Your statement is like the age-ole' "buy low, sell high"
>
> We DO have a common AGREED-TO standard. It is the third-party packet
> standard defined in Chapter 17 of the spec and the APRS spec, as a
> whole.

But that does not do, #1, #2, #3, #4, #5, 6 nor #7 above. I think it is
time to move on...

> The problem with packets not being handled correctly by some
> versions of IGate software stem primarily from interpreting various TNC
> settings or Mic-E packets, not APRS packets in general. The Mic-E
> problems are being addressed by the removal of Mic-E conversion (first
> put in to help accommodate findu.com). The TNC problems will always be
> there as long as different TNC's exist. The software writers have done
> a good job of tackling those issues when they come up.

No, we can solve the TNC differences easily and it is part of my propoal
#2 above. We need to solidify to a single, unambiguous ASCII
representation of AX.25 header for transfer of packets though non-AX.25
networks (such as the APRS-IS). Most authors currently target the TAPR2
standard. But that standard has one SIGNIFICANT weakness for APRS, and
that is that it only displays the HAS-BEEN-USED bit of the last digi in
the path. This is unacceptible to APRS which does not require sequential

digi field usage and leaves us with ambiguities. The only solution is to
adopt a more thourough TAPR2 type ASCII representation that preserves the
HAS-BEEN-USED bit with every DIGI field. Then nothing is lost through the
APRS-IS.

> > OK, so what do you propose to handle complete paths end-to-end?
>
> Third-party packets.

And nothing in my proposal does anything to eliminate 3rd party packets.
In fact, by moving LOOP filtering to TCPIP, and "I", it strengthens 3rd
party format for more general use.

> Bob said:
> > I thought it was a given that we cannot possible preserve all hops
> > end-to-end. In fact the APRS-IS currently throws away ALL source path
> > information! So how can you argue against my proposal which...
>
> APRS-IS does no such thing! APRS-IS, currently, preserves the ENTIRE
> source path, possibly to a fault. It is NOT a given that we cannot
> preserve all hops, end-to-end. We do it today using third-party
> packets.

That is not my underswtanding. Every APRS-IS packet I see back on RF
throws away ALL source path information and substitues TCPIP in its place.
In fact, I think chapter 16 requires it (though I dont have my copy here
handy)...

> The only thing missing is identification of the IGate that injects a
> packet from RF to APRS-IS. And that would be covered by the addition of
> MYCALL,I*.

Yep, I'm tying to put a label on that capability by calling that part of
APRS-IS 1.1 in the proposal... But so far a few high profile authors have
not implemented it... and so we need to continue to stress the importance
of this to them...

> > The proposal only says it will be possible.. So, dont use kiss if you
> > dont want to. Its an option for those that want to save the
> > 16 Bytes on RF in every APRS-IS-to-RF packet.
>
> But then every IGate can no longer assume that a non-third-party packet
> is from RF. There isn't enough APRS-IS to RF activity to justify adding
> this level of complexity to save 16 bytes for some packets (I still
> don't see where you get 16) by someone who might do this in the future.

I can think of MANY present and future applications that can benefit
greatly from not only KISS regenration but also general use of 3rd party
format. BOTH OF THESE are completely blocked because of the current
APRS-IS loop filter dependency on 3rd party as the only loop filter.
In my opinion, we must move away from that dependency and eliminate this
roadblock to future development!

> > ANd all APRS software currently has to > > handle dozens
> > of formats. KISS mode adds ZERO complexity, because it is...
>
> Not true. You add the complexity of no longer having a definite
> indicator of an Internet originated packet. Today, we do. It is a
> third-party packet with TCPIP in the third-party header.

So why then the dependency on 3rd party filtering since filering on only
the "TCPIP" will do the job. By eliminating the dependency on 3rd party
as the loop filter, and moving filtering to the PATH data that indicates
the packet actually WENT rhough the APRS-IS is the logically consistent
way to do things..

And it frees up both 3rd party and KISS processing for lots of present and
future applications and places filtering where it is supposed to be (on
path data) not on construct...

de WB4APR@amsat.org, Bob

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70. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 02:44:03 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81269-2002.05.26-02.19.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 25 May 2002, AE5PL Lists wrote:

> This also affects all client software today that differentiates between
> gated and RF direct packets. Is it really worth asking all software
> authors to re-write their packet parsing code to accommodate the
> possibility that someday, someone might not use third-party packets to
> inject a gated packet into the VHF network?..

All APRS-IS packets under my proposal will be trivial to recognize. One
line of code can do it. Here it is:

If INSTR(packet$,",I,") or INSTR(packet$,",I:") then THIS-IS-GATED

> What we have today works. There is nothing wrong with it.

I think it is a great system. But Steve has publically stated that
its one big shortocming is the lack of source identification.
Adding that REQUIRES incomming packet header processing. and once
you have to add that to ALL Igates, then it s trivial to fix a few
other things while we are at it. All of the 7 items that I have
elaborated above are trivial to do, once you have already taken the
step of parsing the incoming header. My point is why not then do
them?

> Adding the possibility of gated packets appearing as regular packets
> gains nothing other than adding another level of complexity to already
> complex programs.

I just dont think most code writers will find this overly complex. And
since they MUST add the additional processing already inorder to do IGate
Injection identification, then the rest is trivial. So I think that
unless you are saying we dont want Injection-Igate-Identification, then
your arguments about added complexity are moot.

de WB4APR, Bob

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71. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 26 May 2002 03:44:14 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81272-2002.05.26-04.20.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I wish to clarify what I have been saying so that there is no
misunderstanding. Reading the snipped emails shows me that there may be
some out-of-context interpretation being done.

1. APRS-IS is not broken. There is software in existence that does not
comply with the APRS specification. There are TNC's poorly configured
which confuse the APRS software. There are other issues that have
nothing to do with this thread such as server interconnections and
verification.

2. Third-party packets should follow the specification regarding source
header format (trimming all unused digis and removing all * before
appending TCPIP,MYCALL2RF*). If software doesn't do this, it needs to
be corrected in that software. If the source header ends in TCPIP or
TCPXX, only MYCALL2RF* need be appended.

3. I agree that injection IGate identification should exist. After
looking at statement #2, I think the insertion identification should be
done after performing the third-party header trim function. Then, the
insertion identification should be MYCALLIN,TCPIP* This indicates "was
digi'ed by MYCALLIN and is seen digi'ed by the Internet". Then, the end

gating back to RF would only need to remove the * and add MYCALL2RF* to
the outgoing third-party packet header.

The above statements show that a specification does exist today in the
standard APRS spec for gated packets. #3 is a fully backward-compatible
addition to that specification.

I believe that adding the possibility for gated packets to appear as
non-third-party packets does the following:

1. Makes all IGate software that currently exists incompatible with
those packets as no IGate software currently considers non-third-party
packets as gated.

2. Makes all client software that currently differentiates between RF
and gated packets incompatible with those packets.

3. Introduces the possibility of path history loss due to AX.25
restrictions.

4. Adds a level of complexity currently not defined in the APRS
specification.

A quick look at the APRS-IS data stream shows that we can't "force"
someone to upgrade their software. We see this all of the time with
older IGate software with known bugs still being used. If number 1
regarding gating as standard packets is true, then we introduce a
definite loop problem as older software will not know when not to gate
the packet to the Internet and the servers would have no way of knowing
whether a packet was originated on the Internet or gated to the
Internet. This means that the servers would have no protection against
this type of loop if the packet is gated back to the Internet outside of
the dupe check algorithm limits.

While maybe not the absolute most efficient format from the standpoint
of length, third-party packets provide a well-defined method for gating
packets to an AX.25 medium. By definition, gated packets are the
exception, not the rule. The .1 to .2 second transmission savings for
the packets that could be transmitted in AX.25 format may not be worth
introducing the incompatibilities listed above.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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72. [aprsspec] The original APRS plan

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 08:38:00 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS SIG <aprssig@lists.tapr.org>
Message-ID: <LYR11589-81295-2002.05.26-08.13.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

For what it is worth, here is what I wanted as the ultimate APRS routing
plan back in 1995 when I was trying to come up with the shortest possible
packet for the Mic-E (and later the kenwoods):

SSID-ROUTING: This uses the SSID on the TOCALL to indicate N hops just
like we do WIDEn-N. But since it is the SSID on the TOCALL, then there is
no need for the 7 byte or any aditional 7 byte digi fields. Thus

        MYCALL>TOCALL-N:'LLLCS/$

Was a complete Position/Status/Comment packet and only took 0.2 seconds.
This capability is built into every Mic-E and or Kenwood, and in fact
can still be done by ANY TNC. But three things went wrong preventing its
wide spread usage:

1) The only DIGI-writers to implement SSID routing were DIGI_NED, UI-DIGI
and Kenwood.

2) The SSID-N just like the WIDEn-N expected the FIRST digipeater to do
callsign substitution, so that the path was traceable back to the RF
injection point. This was destroyed by Kantronnics missinterpretation of
my spec, and they made all WIDEn-N digi's insert the LAST digipeater.
This is the well known issue that I beat to this day, that NOID must be
enabled so that Kantronics TNC's do not do this. If ID is on, then
kantronics destroy the SOURCE-DIGI field.

2.5) Notice, that because of this Kantronics error, that we individually
have to put the SOURCE digi into the packet ourselves as WIDE,WIDEn-N.
And this causes dupes in the network and now requires 14 additional bytes
in every packet over what SSID routing could do.

3) One popular application (against my strong objections) began using the
TOCALL SSID for other purposes. Thus these packets would do wild things
if ever introduced on 144.39 if SSID routing were implemented.

We have several things (Finally) that can bring SSID routing back out of
the closet and let it revolutionize APRS with shorter packets. Remember
that SSID routing is 100% identical with WIDEn-N but it saves 7 to 14
bytes in every packet. And for a Mic-E, Tiny-Track, MIM or Kenwood posit
packet which is only 23 bytes long in the first place, that is a 25% to
35% improvement!

We could actually realize SSID routing in the future because:

A) More and more people are using UIDIGI, DIGI_NED, and other hOME-grown
   digipeater software. These run on any-old TAPR-2 TNC and there are
   hundreds of thousands of those around...

B) Kantronics is probably working on a follow on release? I have no
   knowledge, but it has been a long time since they had a release.
   (Except then we would have to suffer the complaints of everyone
   (over the $60 upgrade cost)...

C) More and more people are accepting the idea that the most important
   digi for path tracing is the FIRST one. The place where the guy is and
   the place where the packet first enters the network. (NOID)

D) The other application that uses TOCALL ssid's for other purposes
   remains on another frequency and so far has not been a problem.

E) We need everyting we can to improve network efficiency.

If you want to hear how short a Mic-E packet is with SSID routing, take
your kenwood, change its path to "3". Not RELAY, NOT WIDE, not WIDE3-3
but simply 3. Then change the transmit mode from AUTO to PTT. THen push
and release your PTT button. Short and sweet!

AND it is 100% equivalent to "DIGI1,WIDEn-N" if the network would just do
it that way saving actually 14 bytes per packet.

Anyway, jsut something to chew-on...

de WB4APR@amsat.org, Bob

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73. [aprsspec] Re: [aprssig] Re: Message Authentication (was Re: we have a loop)

From: "Ev Tupis (W2EV)" <w2ev@rochester.rr.com>
Date: Sun, 26 May 2002 08:44:53 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81298-2002.05.26-08.22.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> That is where we stand today, a couple of years later. I very
> definitely hope someone comes up with a secure open source solution
> which allows the stream to be secured again. Designing and
> administering such a system will be a lot of work, and I'm not
> surprised no one has taken this on. Until it happens, the APRS IS
> remains vulnerable, and could become unusable at any time.

I won't chime-in any longer on this topic, other than this last time. It's
become obvious that we're in the same position with this thread as we were a
couple of years ago with the APRS Protocol Specification discussion. Until

things are fully documented as they are, it will be difficult to offer any
assistance in getting us to where we need to be.

Until then, only those that are actually coding to the IStream really know
the ins and outs and the rest of us are often times suggesting solutions
that can't work for one reason or another.

With that in mind, my last comment (other than if a point endagers an
eventual BEACONet use of the IStream) is below...

Consider a server-side rather than client-side solution, not unlike a router
table. When an author generates a "registered" copy of their software they
submit a proprietery hash to the client and both the callsign and hash to
the server.

o Authors are still generating the hash table...they simply send the
  'registration' information to two places, rather than one.
o Each author can use their own proprietary hash-table
o Authors simply share their hash-table with the APRS-WG for archival
o New authors could be evaluated prior to being given access to update
  the server table

The risk profile is significantly reduced.

Client-side software requires no (or minimal) modification (aside: if the
hashcode for accessing the IStream changed, it would force software
upgrades...maybe not a bad thing anyway).

Server-side software does. :o)

With kind regards,
Ev, W2EV
--
BEACONet lets you look at the world in ways never before imagined.
http://go.to/BEACONet

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74. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 09:03:24 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81300-2002.05.26-08.39.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 26 May 2002, AE5PL Lists clarified his posts:

> 1. APRS-IS is not broken. There is software in existence that does not
> comply with the APRS specification. There are TNC's poorly configured
> which confuse the APRS software. There are other issues that have
> nothing to do with this thread such as server interconnections and
> verification.

All of those add up to a big mess. "Broken" was a poor choice of words on
my part. But EVERY code writer involved in the APRS-IS to my knowledge
admits that things are a "mess!".

> 3. I agree that injection IGate identification should exist. After
> looking at statement #2, I think the insertion identification should be
> done after performing the third-party header trim function.

Impossible. Currently the header TRIM function is done at the DX end
long after the packet was injected into the APRSIS. If you wait till
then, then you have no clue where it came from, or if you somehow solve
that problem, then your are triming at injection, which I though we all
agreed was not what we want. We want the PATH data to remain intact into
the APRS-IS because of its WEALTH of information. If you trim at
injection, then FINDU would never be able to show you the path of your
packets.

> Then, the
> insertion identification should be MYCALLIN,TCPIP* This indicates "was
> digi'ed by MYCALLIN and is seen digi'ed by the Internet". Then, the end
> gating back to RF would only need to remove the * and add MYCALL2RF* to

> the outgoing third-party packet header.

We should never be discarding valuable "has-been-used" bits (the *). In your example above, then there is total ambiguity in the MYCALLIN field. Was it the IGate, or was it an intended (but unused) path in theoriginal packet?

> #3 is a fully backward-compatible addition to that specification.

But is impossible to implement (as written), removes all PATH information at injection. Continues our dependence on 3rd party as the only loop filter, prevents use of the more efficient KISS mode implementations, prevents any other use of the 3rd party format, and stagnates us to the status quo.

> I believe that adding the possibility for gated packets to appear as
> non-third-party packets does the following:
>
> 1. Makes all IGate software that currently exists incompatible with
> those packets as no IGate software currently considers non-third-party
> packets as gated.

That is why we are trying to define our goals for the future.

> 2. Makes all client software that currently differentiates between RF
> and gated packets incompatible with those packets.

That is why we are tying to defind our goals for the future.

> 3. Introduces the possibility of path history loss due to AX.25
> restrictions.

Exactly the opposite. Makes it possible for PATH preservation for typical packets end-to-end through the APRS-IS

> 4. Adds a level of complexity currently not defined in the APRS
> specification.

Which is trivial to do. Big deal...

> A quick look at the APRS-IS data stream shows that we can't "force"
> someone to upgrade their software. We see this all of the time with
> older IGate software with known bugs still being used. If number 1
> regarding gating as standard packets is true, then we introduce a
> definite loop problem as older software will not know when not to gate
> the packet to the Internet and the servers would have no way of knowing
> whether a packet was originated on the Internet or gated to the
> Internet. This means that the servers would have no protection against
> this type of loop if the packet is gated back to the Internet outside of
> the dupe check algorithm limits.

I disagree comletely. If done as I proposed, the plan is fully backward compatible, AND also it has a mechanism for detection obsolete software and disconnecting it from the network automatically if we want so that the NETWORK can protect its processes from old obsolete software. That is the whole point. The current process has no such mechanism!

The network must have a plan, and the plan must allow the network to assure compatibility or we have gained nothing and are forever stuck in the mess we have now. Sticking with what we have is not what we should be focused on when it has some particular constructs that tie our hands from doing what needs to be done.

> While maybe not the absolute most efficient format from the standpoint
> of length, third-party packets provide a well-defined method for gating
> packets to an AX.25 medium. By definition, gated packets are the
> exception, not the rule. The .1 to .2 second transmission savings for
> the packets that could be transmitted in AX.25 format may not be worth
> introducing the incompatibilities listed above.

Its called progress. I agree that the .1 second savings are not at all the driving force. Go back and look at the 7 advantages I enumerated. Only one of them is the .1 second savings.

de WB4APR@amsat.org, Bob

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75. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 26 May 2002 09:14:34 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81317-2002.05.26-09.50.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Sunday, May 26, 2002 8:04 AM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> All of those add up to a big mess. "Broken" was a poor
> choice of words on
> my part. But EVERY code writer involved in the APRS-IS to my
> knowledge
> admits that things are a "mess!".

But not due to the design of APRS-IS. What we are talking about here is specifications for IGates, not an APRS-IS specification. And we are talking, in some cases, about software that does not conform to the current APRS specification.

> > 3. I agree that injection IGate identification should exist. After
> > looking at statement #2, I think the insertion
> identification should be
> > done after performing the third-party header trim function.
>
> Impossible. Currently the header TRIM function is done at the DX end

Bob, you completely misunderstood what I was saying. I was saying that the trim function should be done at the receiving end before adding the insertion identification. It would have NO affect (other than make things simpler) for the DX end.

> We should never be discarding valuable "has-been-used" bits

We are not. The definition of the TNC-2 header says that ALL digis up to and including the one with the * have been used. If you want to have the insertion IGate put asterisks on every digi up to the one with the *, fine.

> your example above, then there is total ambiguity in the
> MYCALLIN field.
> Was it the IGate, or was it an intended (but unused) path in
> theoriginal
> packet?

No, Bob, it is not ambiguous. If you see a TCPIP* at the end of the path, then the previous callsign is the IGate. This accomplishes the EXACT same thing as your "I" without adding another variable to the equation. Again, if you want all of the via fields given an asterisk, it has no affect on the overall meaning.

> > #3 is a fully backward-compatible addition to that specification.
>
> But is impossible to implement (as written), removes all PATH
> information
> at injection. Continues our dependence on 3rd party as the only loop

It does NOT. It removes all UNUSED path information. Re-read Chapter 17 of the APRS specification.

> > 1. Makes all IGate software that currently exists incompatible with
> > those packets as no IGate software currently considers
> non-third-party
> > packets as gated.
>
> That is why we are trying to define our goals for the future.
>
> > 2. Makes all client software that currently differentiates
> between RF
> > and gated packets incompatible with those packets.
>
> That is why we are tying to defind our goals for the future.

But why make your future incompatible with the present?

> > 3. Introduces the possibility of path history loss due to AX.25
> > restrictions.
>

> Exactly the opposite. Makes it possible for PATH preservation for
> typical packets end-to-end through the APRS-IS

Once again, Bob, this is an inaccurate statement. The transformation necessary to return the packet to AX.25 compliancy dictates that paths will not be preserved because they will be shortened, loosing valuable routing information.

> I disagree comletely. If done as I proposed, the plan is
> fully backward
> compatible, AND also it has a mechanism for detection
> obsolete software
> and disconnecting it from the network automatically if we
> want so that the
> NETWORK can protect its processes from old obsolete
> software. That is
> the whole point. The current process has no such mechanism!

WHOA!!! Now you want the servers to monitor the data stream for compliance to a spec they have NO way of detecting! AND, you want the APRS-IS servers to be an enforcement agent against people using out-of-date software! Again, for the reasons stated in my previous email, your plan is NOT backward compatible. If it were, why would you need this "enforcement".

> The network must have a plan, and the plan must allow the network to
> assure compatibility or we have gained nothing and are
> forever stuck in
> the mess we have now. Sticking with what we have is not what we
> should be focused on when it has some particular constructs that tie
> our hands from doing what needs to be done.

But our hands are not tied. Since you like using clichés, how about "throw the baby out with the bath water". That is what the final part of your proposal amounts to. Until now, your recommendations had nothing to do with APRS-IS but everything to do with IGate functionality. You don't rewrite a specification because some software written doesn't implement it properly. You get the implementers to adhere to the spec. If a feature can be safely added to the spec, such as appending the MYCALL,TCPIP* or making all used VIA calls have asterisks, great. But I also believe you "don't fix what ain't broke". And that is what you are proposing above.

The APRS-IS is reasonably well defined:

1. No third-party packets passed as third-party packets on APRS-IS.
2. Distribute ALL packets with properly formed headers and a data byte if from a verified source.
3. Use TNC-2 or AEA header format as applicable.
4. Maintain a 9 character maximum for all FROM, TO, and VIA calls.

What could be more flexible?

IGates should currently be following the APRS specification:

1. Gate to APRS-IS the payloads of all third-party packets whose third-party headers do not contain TCPIP or TCPXX.
2. Gate to APRS-IS all other packets with a data byte (dupe checking here is encouraged).
3. Use the defined third-party packet for gating packets from APRS-IS to RF.

The addition to identify IGates that inject a packet into APRS-IS is:

4. Perform the header trim specified for third-party headers, then append MYCALL,TCPIP*.

This remains fully compatible with today's software yet provides the capability for IGate authors to enhance their products to support full path history.

> Its called progress. I agree that the .1 second savings are

Progress? Or one man's desire to see something done without regards to the consequences (which is the most common use of the word "progress")? I am sorry, Bob. But that is what your responses to my previous post reflect. Take a step back, take a deep breath, and re-read my previous post without the preconception that you will take issue with it. I laid forth some very solid reasons why the addition of using standard AX.25 packet formats could (and would) be problematic.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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76. [aprsspec] RE: Injecting IGate identification

From: Dale Heatherington <dale@wa4dsy.net>
Date: Sun, 26 May 2002 11:41:22 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81340-2002.05.26-11.17.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'd rather not attempt to store the complete
path history in every packet.

IP packets on the internet do not contain a history
of all the switches they passed through. If they
did they would grow too large. When a packet arrives
you know the originator and the last router (the one
you are connected to) and that's all. The internet
seems to work just fine. IP packets do have a
"Time To Live" integer which gets decremented after
each hop. When it gets to zero it's discarded. This
prevents infinite loops.

Instead of putting in an ID for every Igate
a packet goes through why not just do this:

If packet does NOT have a Time To Live path element:
1. Keep the original USED path, discarding unused elements.
2. append the injecting Igates call sign
3. append the Time To Live counter as the LAST path element

If it DOES have TTL:
1. If TTL is zero discard packet ELSE decrement TTL and process.

Note the PATH of an Igated packet can be longer
than an original packet by two elements.

Time to live path element:
First char: I
2nd char: R (came from RF)
            I (came from validated Internet user)
            X (came from a non-validated user)
            S (Came from Igate Internal status)
            Other codes possible...

3rd char: digit 0 to 9 is initial time to live in hops
4th char: -
5th char: Current Time To Live (TTL) value, decremented by each Igate

Examples: II4-4 IX3-3   IR5-5

Original pkt from TNC:
WA4DSY>N4ZZ*,WIDE2-1,WIDE:Hello

after it hits the first Igate WA4GT
WA4DSY>N4ZZ*,WIDE2-1,WA4GT,IR4-4:Hello

Second Igate output
WA4DSY>N4ZZ*,WIDE2-1,WA4GT,IR4-3:Hello

Third
WA4DSY>N4ZZ*,WIDE2-1,WA4GT,IR4-2:Hello

Forth
WA4DSY>N4ZZ*,WIDE2-1,WA4GT,IR4-1:Hello

fifth
WA4DSY>N4ZZ*,WIDE2-1,WA4GT,IR4-0:Hello

sixth
Discarded due to Time to Live being zero.

With TTL we can do things like set TTL to zero
for Igate status messages and they will only be
seen by the users on that particular Igate.

Number of Igate hops a packet took can be
determined.

Infinite Loops impossible assuming the loop

includes at least one Igate that knows about
the TTL path element.

Anyways, I thought I'd share my thinking here
for whatever it's worth.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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77. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 11:46:24 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81341-2002.05.26-11.22.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 26 May 2002, AE5PL Lists wrote:

> > Impossible. Currently the header TRIM function is done at the DX end
>
> Bob, you completely misunderstood what I was saying. I was saying that
> the trim function should be done at the receiving end before adding the
> insertion identification. It would have NO affect (other than make
> things simpler) for the DX end.

I still cannot follow what you are trying to say... there are four or
more "receiving ends". I dont think we should TRIM at the injection
point, and if you dont add the ID till after the trim at the distant
IS-2-RF point, then that is impopssible because INJECTION ID must be done
at the first...

> But why make your future incompatible with the present?

It isnt. All ofmy proposal is backwards compatible.

> Once again, Bob, this is an inaccurate statement. The transformation
> necessary to return the packet to AX.25 compliancy dictates that paths
> will not be preserved because they will be shortened, loosing valuable
> routing information.

Nope, not under my proposal. the original path data can be preserved end
to end in most cases (That is up to an original 3 hop path) Beyond that,
it preserves the SOURCE digi, and the number of hops, and then all
after...

> WHOA!!! Now you want the servers to monitor the data stream for
> compliance to a spec they have NO way of detecting! AND, you want the
> APRS-IS servers to be an enforcement agent against people using
> out-of-date software! Again, for the reasons stated in my previous
> email, your plan is NOT backward compatible. If it were, why would you
> need this "enforcement".

It is a future option if obsolete softtware is causing problems. But the
fact that it is backwards compatible and old sfotware that does not cause
problems will continue to work...

> > the mess we have now. Sticking with what we have is not what we
> > should be focused on when it has some particular constructs that tie
> > our hands from doing what needs to be done.
>
> But our hands are not tied. Since you like using clichés, how about
> "throw the baby out with the bath water". That is what the final part
> of your proposal amounts to. Until now, your recommendations had
> nothing to do with APRS-IS but everything to do with IGate
> functionality. You don't rewrite a specification because some software
> written doesn't implement it properly. You get the implementers to

> adhere to the spec. If a feature can be safely added to the spec, such
> as appending the MYCALL,TCPIP* or making all used VIA calls have
> asterisks, great. But I also believe you "don't fix what ain't broke".
> And that is what you are proposing above.

Then you still are not seeing the concept or missing the point.

de WB4APR@amsat.org, Bob

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78. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 12:30:50 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81347-2002.05.26-12.06.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 26 May 2002, Dale Heatherington wrote:

> I'd rather not attempt to store the complete
> path history in every packet.

I think one of the main things we want to preserve is the ability to
watch the APRS-IS stream and see all raw packets in their entirety. Thus
nothing gets dropped at the injection end. Only the Injecting IGate adds
its MYGATE*, to indicate it is the entry pint into the APRS-IS and then
it adds the "I" to indicate that is where it goes next.

> > IP packets on the internet do not contain a history
> of all the switches they passed through. If they
> did they would grow too large. When a packet arrives
> you know the originator and the last router (the one
> you are connected to) and that's all. The internet
> seems to work just fine.

But this is ham radio and the Internet is only one piece of the pie.
I dont care at all about what happens within the APRS-IS other than we
know where it went in, and where it comes out.

> Instead of putting in an ID for every Igate
> a packet goes through why not just do this:
>
> If packet does NOT have a Time To Live path element:
> 1. Keep the original USED path, discarding unused elements.
> 2. append the injecting Igates call sign
> 3. append the Time To Live counter as the LAST path element

I dont want to loose the ability to observe ALL aprs packetw worldwide in
their raw form...

> after it hits the first Igate WA4GT
> WA4DSY>N4ZZ*,WIDE2-1,WA4GT,IR4-4:Hello

I agree that I dont think any of us care about the inter-APRS-IS hops..
so is this level of added stuff needed?

> Anyways, I thought I'd share my thinking here
> for whatever it's worth.

I am not at all discarding your ideas, that may be great, and entirely
within the interenals of the APRS-IS. Such input is very welcome. So
far, all my rrantings are only concerned with how it gets in from RF and
how it goes back to RF. So I will keep a l ow profile with how you
guys decide to do the internal stuff.

So the only focus of my comments above are that I want to not throw
anything away going it so that we can always monitor the global APRS
system by just watching the APRS-IS..

bob

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79. [aprsspec] RE: Injecting IGate identification

From: Bill Vodall - WA7NWP <wa7nwp@yahoo.com>
Date: Sun, 26 May 2002 10:35:45 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81354-2002.05.26-13.15.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> > Instead of putting in an ID for every Igate
> > a packet goes through

Having an Igate source packet on the path is a very good thing. It was
a kick watching the PCSAT page for packets Igated from my system.

Implementing it is trivial.

1. Well behaved TCP applications append "callsign,I" before uploading a packet.

2. Legacy applications and Igates wouldn't append the callsign. The server they're
connecting to knows who they are - they gave a login callsign. So the server can
add the "Callsign,I*" if the application didn't put it on.

Bingo - all Igated packets have a source ID. It might not the 100% accurate in the
case of multiple old Igates without the source callsign addition code - but I bet it
wouldn't take long before most of them were updated.

73,
Bill - WA7NWP

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80. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 26 May 2002 13:01:53 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81358-2002.05.26-13.37.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

It is obvious to me now that you do not have any comprehension of what I
have said. This may be due to your lack of knowledge on how APRS-IS
works or networks as a whole operate, I don't know. Whether by accident
or by purpose, the APRS specification actually does a good job of
defining how interaction with non-AX.25 networks should occur.

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Sunday, May 26, 2002 10:47 AM
> Subject: [aprsspec] RE: Injecting IGate identification
>
> I still cannot follow what you are trying to say... there are four or
> more "receiving ends". I dont think we should TRIM at the injection

So what? Each RF->APRS-IS gating IGate trims the packet to the last
used digi it sees and then appends its MYCALL,TCPIP*. The packet which
reaches the core first will be the one that is passed back to the rest
of the world and the others will be duped out. You have a complete path
history visible on APRS-IS and you have identified the gating IGate.
You have also made the transition back to RF extremely easy by allowing
the APRS-IS->RF IGate to simply append its own callsign to the
third-party packet header. For packets not ending in TCPIP or TCPXX,
the APRS-IS->RF IGate would still need to trim the packet to the last
used digi and then append TCPIP,MYCALL*, per the APRS specification on
third-party headers.

> It isnt. All ofmy proposal is backwards compatible.

Per my previous posts, I showed that, in fact, they are not backwards
compatible.

> Nope, not under my proposal. the original path data can be
> preserved end

> to end in most cases (That is up to an original 3 hop path)
> Beyond that,
> it preserves the SOURCE digi, and the number of hops, and then all
> after...

Bob, you just contradicted yourself. "in most cases", "preserves the
source digi and the number of hops" These statements say that any other
digis used in the path are lost in any cases where this path reduction
is done.

> It is a future option if obsolete softtware is causing
> problems. But the
> fact that it is backwards compatible and old sfotware that
> does not cause
> problems will continue to work...

Again, the injection to RF of APRS-IS packets as standard APRS packets
is not backwards compatible, as shown. Look for other methods to
encourage people to upgrade software. Forcing incompatibilities is not
the way.

> Then you still are not seeing the concept or missing the point.

That may be, Bob. But apparently you have also missed every point I
have made. Hopefully the IGate authors and APRS-IS server authors can
get together to create a working group to create a specification for
IGates and a specification for APRS-IS. Those specifications must be
based on the APRS specification to be of any use. Hopefully they will
have the foresightedness and broad mindedness to carefully review the
ramifications of specification alterations before incorporating them.
Those specifications need to be created by those that have a complete
understanding of APRS-IS and its interactions internally and to the RF
world.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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81. [aprsspec] RE: Injecting IGate identification

From: Dale Heatherington <dale@wa4dsy.net>
Date: Sun, 26 May 2002 14:25:34 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81359-2002.05.26-14.01.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sunday 26 May 2002 01:35 pm, Bill Vodall - WA7NWP wrote:
> 1. Well behaved TCP applications append "callsign,I" before uploading a
> packet.
>
> 2. Legacy applications and Igates wouldn't append the callsign. The
> server they're connecting to knows who they are - they gave a login
> callsign. So the server can add the "Callsign,I*" if the application
> didn't put it on.

Yes, I think that's a good idea. So my revised suggestion is:

If incoming packet has no I or I* on the end of the path,
remove unused path elements and then append users call sign
and the Time-to-Live path element. eg: II4-4

If incoming packet has I or I* on the end of path
change the I or I* to the proposed Time-To-Live path element
and set TTL to default.

If incoming packet has Time-to-Live then check for zero
and if not zero decrement it.

Proposed TTL codes: IIn-n = Internet source IRn-n = RF Source

Examples assuming logged on user is W4XYZ and Igate is W4ABC :

User application did nothing to path.
INPUT: WA4DSY>APRS,WIDE*:Hello
Output: WA4DSY>APRS,WIDE*,W4XYZ,II4-4:Hello

User application appended his call and "I" to the path
Input: WA4DSY>APRS,WIDE*,W4XYZ,I:Hello
Output WA4DSY>APRS,WIDE*,W4XYZ,II4-3:Hello
Note we pre-decrement the TTL above to account
for the previous hop.

User applicaton supports TTL
Input: WA4DSY>APRS,WIDE*,W4XYZ,II4-4:Hello
Output:WA4DSY>APRS,WIDE*,W4XYZ,II4-3:Hello

If packet had come from the TNC on W4ABC Igate:

INPUT: WA4DSY>APRS,WIDE*:Hello
Output: WA4DSY>APRS,WIDE*,W4ABC,IR4-4:Hello

For this to work correctly all existing Inet to Inet APRS
servers (hubs) must not append anything to the path or they
will push the TTL field back from the end. Anyone do this?

>
> Bingo - all Igated packets have a source ID. It might not the 100%
> accurate in the case of multiple old Igates without the source callsign
> addition code - but I bet it wouldn't take long before most of them were
> updated.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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82. [aprsspec] APRS Position Error

From: "" <mdrdg@ourtownusa.net>
Date: Sun, 26 May 2002 13:27:56 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81360-2002.05.26-14.03.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>From another location I see my Wide Digi at times beacons but the position and text elements are not even what was stored. This is a Kantronics KPC3+. Could this be caused by collisions at the recieving stations end. I have lt thru 3 loaded with the same postion text and ltp 4 is not being used but it is set to GPS. I took that out to see if it does it again.

Anyone experience this.

Bob KA0MR

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83. [aprsspec] Draft APRS IS Spec

From: "Roger Bille" <roger.bille@telia.com>
Date: Sun, 26 May 2002 23:18:00 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81374-2002.05.26-16.53.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have to things to be added to the draft spec:

 1) The new draft spec for APRS IS specify that "All packets are injected in their RAW form". It should be added to this that the DATA portion should fully support 8-bit characters.

 2) No conversion of any packets should be allowed which is passed back to the APRS IS. I'm in particular thinking of Mic-E conversion that are feed back with timestamps of the converting system. The client should be fully responsible for any necessary conversion.

73 de sm5nrk/Roger

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84. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 19:57:26 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81380-2002.05.26-19.33.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 26 May 2002, AE5PL Lists wrote:

> It is obvious to me now that you do not have any comprehension of what I
> have said.

I agree that it is clear we are not communicating well... And that you
seem to have some missundersatandings of how the APRS-IS works..

> So what? Each RF->APRS-IS gating IGate trims the packet to the last
> used digi it sees and then appends its MYCALL,TCPIP*.

Sorry, that is just not right. TELNET to any of the HUBS or to the
central SERVERS and you will not see TCPIP added to ANY RF packets
other than IS<->IS only ones that are originated by the IGATES
themselves. All RAW packets from RF are distributed as received... This
is the way it is. I think this is what you are missing...

Now, in APRS-IS 1.1, we are improving that by asking all INGATES to append
",INGATE*,I" onto the end of all such inbound packets so that we can see
where they are coming from. Still though, there is no truncation nor
dropping of ANY path data. We want to continue to use the APRS-IS to view
the world of APRS in its raw form. We never want to loose path data on
packets INJECTED into the APRS-IS.

> Per my previous posts, I showed that, in fact, they are not backwards
> compatible.

No you have not. You threw out a lot of arguments, but they either
missunderstood my proposal, or were based on incorrect assumtions about
how the current APRS-IS system works. Unless I missed something, I dont
recall any valid point that you have made that causes my proposal to not
be backwards compatible. Remember, my proposal is a phased approach.
I agree completely that we cannot do them out of sequence nor can you do
version 1.2 without having 1.1 in place first. But if we do it right,
then it is backwards compatible. What I mean by that is that it WONT
BREAK ANYTHING. I am not claiming that it will continute to support
software written 5 years ago that has not kept up with the current APRS-IS
objectives..

> > to end in most cases (That is up to an original 3 hop path)
> > Beyond that, it preserves the SOURCE digi, and the number of hops, and
> > then all after...
>
> Bob, you just contradicted yourself. "in most cases", "preserves the
> source digi and the number of hops" These statements say that any other
> digis used in the path are lost in any cases where this path reduction
> is done.

No, there is no conradiction. I am talking apples and you are arguing
oranges... You still appear to not unederstand that both the current
APRS-IS and what I propose both DO preserve ALL path data INBOUND. I hope
we all agree that we always want the APRS-IS to preserve all original
packets with NO loss of path data to all APRS-IS online viewers. Do we
agree here?

Good.

Then the only issue of path truncation ONLY occurs when a packet is
prepared for OUTGATE transmission on RF. Currently the OUTGATE then makes
sure that its call,TCPIP are in the path and THAT is when it drops all
unused path data. The way I read what you keep saying is that you think
this process occurs when the packet enters the APRS-IS. This is just not

correct. It occurs only when the packet is prepared for the OUTGATE.

> Hopefully the IGate authors and APRS-IS server authors can
> get together to create a working group to create a specification for
> IGates and a specification for APRS-IS. Those specifications must be
> based on the APRS specification to be of any use. Hopefully they will
> have the foresightedness and broad mindedness to carefully review the
> ramifications of specification alterations before incorporating them.
> Those specifications need to be created by those that have a complete
> understanding of APRS-IS and its interactions internally and to the RF
> world.

Yep, we certainly agree here....

de WB4APR@amsat.org, Bob

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85. [aprsspec] Re: Draft APRS IS Spec

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 20:09:01 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81382-2002.05.26-19.44.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yes! I will add these on Tuesday when I can get access back to the
site... thanks
Bob

On Sun, 26 May 2002, Roger Bille wrote:

> I have to things to be added to the draft spec:
>
> 1) The new draft spec for APRS IS specify that "All packets are injected in their RAW form". It
should be added to this that the DATA portion should fully support 8-bit characters.
>
> 2) No conversion of any packets should be allowed which is passed back to the APRS IS. I'm in
particular thinking of Mic-E conversion that are feed back with timestamps of the converting system. The
 client should be fully responsible for any necessary conversion.
>
> 73 de sm5nrk/Roger
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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86. [aprsspec] RE: Injecting IGate identification

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 26 May 2002 20:26:28 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81383-2002.05.26-20.02.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dale,

I think I can maybe agree with most of your post (below) except that I

still want to preserve ALL path data on the INBOUND APRS-IS process just like we have now. We want to be able to continue to use the APRS-IS as a means to view ALL raw packets worldwide. Bandwidth within the APRS-IS is not an issue.

There is no need to throw out even unused path data on the 99.99% of all APRS-IS pacekts when only 00.01% of those packets ever go back to RF and that is the only time that the length of the header is of any concern..

Lets dont drop ANYTHING unless it is one of the 00.01% of APRS-IS packets that has to go back to RF. Then lets first try just dropping unused path fields (like we do now). If that is still too big, then lets use my intelligent truncation model which always preserves all critical entry point and hop counts...

Bob

 On Sun, 26
May 2002, Dale Heatherington wrote:

> On Sunday 26 May 2002 01:35 pm, Bill Vodall - WA7NWP wrote:
> > 1. Well behaved TCP applications append "callsign,I" before uploading a
> > packet.
> >
> > 2. Legacy applications and Igates wouldn't append the callsign. The
> > server they're connecting to knows who they are - they gave a login
> > callsign. So the server can add the "Callsign,I*" if the application
> > didn't put it on.
>
> Yes, I think that's a good idea. So my revised suggestion is:
>
> If incoming packet has no I or I* on the end of the path,
> remove unused path elements and then append users call sign
> and the Time-to-Live path element. eg: II4-4
>
> If incoming packet has I or I* on the end of path
> change the I or I* to the proposed Time-To-Live path element
> and set TTL to default.
>
> If incoming packet has Time-to-Live then check for zero
> and if not zero decrement it.
>
> Proposed TTL codes: IIn-n = Internet source IRn-n = RF Source
>
> Examples assuming logged on user is W4XYZ and Igate is W4ABC :
>
> User application did nothing to path.
> INPUT: WA4DSY>APRS,WIDE*:Hello
> Output: WA4DSY>APRS,WIDE*,W4XYZ,II4-4:Hello
>
> User application appended his call and "I" to the path
> Input: WA4DSY>APRS,WIDE*,W4XYZ,I:Hello
> Output WA4DSY>APRS,WIDE*,W4XYZ,II4-3:Hello
> Note we pre-decrement the TTL above to account
> for the previous hop.

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87. [aprsspec] RE: Injecting IGate identification

From: Neil Johnson <njohnsn@iowatelecom.net>
Date: Fri, 24 May 2002 15:34:27 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81403-2002.05.26-23.09.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sunday 26 May 2002 10:41 am, Dale Heatherington wrote:
> I'd rather not attempt to store the complete
> path history in every packet.
>
> IP packets on the internet do not contain a history
> of all the switches they passed through. If they
> did they would grow too large. When a packet arrives
> you know the originator and the last router (the one
> you are connected to) and that's all. The internet
> seems to work just fine. IP packets do have a

> "Time To Live" integer which gets decremented after
> each hop. When it gets to zero it's discarded. This
> prevents infinite loops.

It would be nice to have some sort "TTL Exceeded message" sendtback to the
source (if possible) when the TTL hits zero.

This would allow one to use a "traceroute" like command to determine the path
a packet might take.

(Traceroute identifies a path taken by an IP packet by sending a packet to
the destination, first with a TTL of 1 , then with TTL of 2, then a TTL of 3,
etc. It then can figure out the path by looking at the source of returning
"TTL exceeded" packets").

Ahhh, something to keep in mind for APRS Spec 2.0 I guess.

--
Neil Johnson, N0SFH
http://www.iowatelecom.net/~njohnsn
http://www.njohnsn.com/
PGP key available on request.

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88. [aprsspec] Re: Draft APRS IS Spec

From: Roger Barker <roger@peaksys.co.uk>
Date: Mon, 27 May 2002 08:57:59 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81434-2002.05.27-03.42.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>On Sun, 26 May 2002, Roger Bille wrote:
>
>> I have to things to be added to the draft spec:
>>
>> 1) The new draft spec for APRS IS specify that "All packets are injected in
>their RAW form". It should be added to this that the DATA portion should fully
>support 8-bit characters.

In message <LYR26815-81382-2002.05.26-19.44.57--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
>Yes! I will add these on Tuesday when I can get access back to the
>site... thanks
>Bob

What this part of the spec currently says is not what it really means.

1. It does not really mean "raw form".

2. If I'm reading the correct document (I'm getting slightly confused
about that!) it also doesn't really mean "the packets may be in any
recognizable TNC header format".

In fact what is acceptable is only two of the three major decoded frame
header formats that are in use in TNCs, and even then only in their most
simplistic form - all frame type information removed.

--
Roger Barker   roger@peaksys.co.uk
Boston, UK

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89. [aprsspec] RE: Injecting IGate identification

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Mon, 27 May 2002 05:51:09 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81440-2002.05.27-06.26.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Due to the adversarial nature that this thread has taken, I have decided
not to pursue it any further. Suffice it to say that I have presented
substantiated reasons why Bob's proposals, as they stand today,
introduce incompatibilities with the APRS specification and with current
IGate software.

For those of you who are IGate authors, I will be happy to elaborate
off-SIG if you wish. I don't feel this thread is going anywhere with
the friction apparent in the posts.

I hope that the IGate authors and APRS-IS server authors get together
and address creating an IGate specification and APRS-IS specification.
I don't believe anything is to be gained by arbitrarily creating such
documents without their guidance. As an APRS-IS server author, I would
be willing to compile such documents in conjunction with a working group
made up of those individuals, similar to what Ian did with the APRS
specification.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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90. [aprsspec] max path length on APRSIS

From: Dale Heatherington <dale@wa4dsy.net>
Date: Mon, 27 May 2002 14:51:29 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81499-2002.05.27-14.27.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Quick question. Is it safe to append two additional path elements
to an Internet aprs packet that has 8 digis already
in the path? Total length of path would be 11 (including dest addr).
Will any existing client or server programs will blow up?

I need to know what to do when I append the injecting CALL
and Time-To-Live path items to the original path. Bob does not
want anything removed from the original path.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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91. [aprsspec] SSID-N routing

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 27 May 2002 15:03:00 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-81501-2002.05.27-14.38.49--lyris.aprsspec#tapr.org@lists.tapr.org>
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Let me clarify about SSID-N routing:

1) In my opinion, the directional digipeating is a dead concept
2) This frees up 2 of the four SSID bits for other use.

Here is how I think SSID-ROuting should be implemented. Remember the SSID
here is on the AX.25 TOCALL and that no digi field is needed or used.
That is where the savings comes in.

a) SSID-N is identical to WIDEn-N except it saves 7 bytes

b) All digis digipeat the packet after decrementing the TOCALL SSID.

c) The 3rd and 4th bits are PRIORITY bits. Thus

```
   00xx are just like WIDEn-N hops 0 through 3 but are routine packets
   01xx are just like WIDEn-N hops 0 through 3 but are priority packets
   10xx are just like Widen-N hops 0 through 3 but are urgent packets
   11xx are reserved for future use.

d) IN ADDITION, the first digi to hear a SSID-N packet checks the digi
fields.  If empty, it inserts its MYDIGI call to mark the source of entry
of the packet into the APRS RF system.

e) Normal DUP filtering is also applied.

You ask what good are the priority bits?  It depends.  But if our network
is ever smart enough to make decisions under stress, the routine packets
with large hop counts might be the first ones to be dropped.

You ask what about hops above 4?  SImple, use WIDE4-4 or whatever.  This
SSID-N idea is only for high efficiency locally where the majority of
packets are 3 hops or less..  All of the other APRS digipeater options
remain.

de WB4APR@amsat.org, Bob


---
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```

92. [aprsspec] Re: max path length on APRSIS

```
From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 27 May 2002 17:08:50 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81513-2002.05.27-16.44.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

On Mon, 27 May 2002, Dale Heatherington wrote:

> Quick question. Is it safe to append two additional path elements
> to an Internet aprs packet that has 8 digis already
> in the path? Total length of path would be 11 (including dest addr).
> Will any existing client or server programs will blow up?
>
> I need to know what to do when I append the injecting CALL
> and Time-To-Live path items to the original path. Bob does not
> want anything removed from the original path.

I think going from RF=>IS into APRS-IS it should not be a problem. We
want to see all packets in their raw form (like we have now) and we want
INgate identification. THus size should not be a limitation.

But let me clarify some things I have said to make sure I am not confusing
others. My perspective has been descirbing the APRS-IS from the
perspective of what goes from RF=>IS into an INgate and what can happen at
the IS=>RF at an OUTgate. I think Dale and Steve are looking also at what
goes on inbetween (which has not been my focus)...

One thing I would change about Dale's idea is that it should not be a
time-to-live, but a time-to-die. His time-to-live starts with N and
decrements. This assumes apriori knowledge about what is a reasonable N
to start with and is not backwards compatible with existing "INgate*,I".

Whereas by using "INgate*,I" and then Incrementing I on every
"internal-to-the-IS layer thorough the servers, and hubs, and regional
distribution points, then each such point is better aware of its distance
down the tree and so is better in a position to KILL a packet with a
TIME-TO-DIE counter (I#) that has gotten too BIG.

In otherwords, INgates still inject with "INgate*,I" but then the IS
processes Increment I each time an internal distribution occurs. It then
becomes "INgate*,I1" then INgate*,I2", "INGATE*,I3" and so on.

de WB4APR@amsat.org, Bob

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93. [aprsspec] Re: max path length on APRSIS

From: Dale Heatherington <dale@wa4dsy.net>
Date: Mon, 27 May 2002 21:23:53 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81543-2002.05.27-20.59.56--lyris.aprsspec#tapr.org@lists.tapr.org>
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On Monday 27 May 2002 05:08 pm, Bob Bruninga wrote:

> One thing I would change about Dale's idea is that it should not be a
> time-to-live, but a time-to-die. His time-to-live starts with N and
> decrements. This assumes apriori knowledge about what is a reasonable N
> to start with and is not backwards compatible with existing "INgate*,I".
>
> Whereas by using "INgate*,I" and then Incrementing I on every
> "internal-to-the-IS layer thorough the servers, and hubs, and regional
> distribution points, then each such point is better aware of its distance
> down the tree and so is better in a position to KILL a packet with a
> TIME-TO-DIE counter (I#) that has gotten too BIG.
>
> In otherwords, INgates still inject with "INgate*,I" but then the IS
> processes Increment I each time an internal distribution occurs. It then
> becomes "INgate*,I1" then INgate*,I2", "INGATE*,I3" and so on.
>
> de WB4APR@amsat.org, Bob

Bob, since the primary reason for time-to-live (ttl) is to stop infinite
loops, your incrementing I# idea will work. But, I wanted an additional
piece of info in there - the source of the packet: TNC, Internet client,
another aprs Server or Hub, or internal to the Internet server.

So far I have defined the following for Time-to-Live:

Assuming ttl is 5, MyCall is WA4DSY, Logged on user is WA4ABC
and the path does NOT already have and I or IxN-N (old software).

WA4ABC,IC5-5 from validated internet Client
WA4DSY,IR5-5 from local TNC (RF)
WA4DSY,IS5-5 from data I get from connecting to a Hub or Server
WA4DSY,IU5-5 from UDP port
WA4DSY,II1-1 from Internal source (status msg etc)

The only questionable one is the Hub source. Perhaps it should
have the first N characters of its domain name instead of MyCall
(suggested by Steve).

If a packet comes in from anywhere except the TNC and already has
a MYCALL,I on the end of the path I just change the I to Ix5-5 where
x indicates the source.

If the packet has an TTL path element on the end I check for ZERO
and decrement it it's not. Discard if it was zero.

The path will be either zero or 2 elements longer than the original.

So, there it is and I've coded almost all of it and it basically works.
I could change to your I# idea but I'd lose the source info.
Is it of value or not?
Also, why is I# more compatible than IxN-N ?

Oh, one more thought. By using time-to-live count
DOWN the originator controls how far his packets can
go. Most of the time he sets the value high enough
to pass through more than the maximum hubs and/or servers.
However, if my server has some status messages intended
for local users that the whole world does not want such as (but not limited to)
the ">JAVA" status messages, he can set those with a TTL of 1
so they don't go beyond the logged on users.

If I were to put this up on IS at wa4dsy.net
do you all think anything would blow up????

--

Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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94. [aprsspec] Re: [aprssig] SSID-N routing

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 27 May 2002 23:57:19 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>,
        <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81558-2002.05.27-23.33.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 27 May 2002, John Kraus wrote:

> Bob,
>
> Could you give an example of two equivalent packets one using the current
> scheme and one using the SSID-N mode you are discussing. I help maintain a
> digi_ned digi and I want to understand this so that it can be implemented
> if we decide to do this.

 WU2Z>APRS,WIDE3-3...
 WU2Z>APRS-3:...>

Should be equivalent. The second one uses SSID-N routing.

> On another issue how does this SSID-N directional routing differ in results
> from the AUTO E-W-N-S
> preemptive paths. I think that having a few simple generic keyword
> digicalls that it is understood will be preempt to use direct paths rather
> than generic ones is more likely to be understood and adopted.

Forget directive routing. It was a good idea a long time ago (back in
1994 when I first came up with it, but it is of no value now)...

> If a station can use a keyword and expect the digi owner to create and use
> the "Best" path for the local environment. What is the downside? I
> remember the drive back in the days of simple wides to always use a direct
> path whenever possible . This keyword method would allow direct paths to
> be used without the mobile needing to know anything about the local
> network. It might also be easier to implement in some systems.

Seems like a good idea to me...
but will be a poitn of contention getting everyone to agree what "best"
means under any given situation..>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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95. [aprsspec] APRS-IS and IGate Specifications

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Tue, 28 May 2002 10:51:08 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81640-2002.05.28-11.27.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

If attempts to unilaterally create specifications with preset agendas
and add "features" to the APRS-IS data stream continue, then I hope the

people that do this realize that instead of helping APRS-IS, they are most likely going to create a bigger mess. As it stands today, APRS-IS is, for the most part, working and working well. I would think that before rushing headlong into "fixes" and "enhancements", we, the amateur radio community, would like to first have a detailed specification of what exists today and what is supposed to exist (based on the APRS specification) today. IMO, this APRS-IS specification should originate from the authors of APRS servers and authors of IGates as they should have the best knowledge of how their software is designed and how the current APRS-IS is architected. I would hope that they also have a firm grasp of the APRS specification.

Once this is done, the working group of authors described above should look at enhancements on an individual basis, reviewing compatibilities with the APRS-IS specification, compatibilities with the APRS specification, restrictions, benefits, etc. Also, the working group could take on the task of defining a next-generation APRS-IS if deemed necessary. But if the task of defining a next-generation APRS-IS is done before a valid current APRS-IS specification is finished, most of the knowledge gained from the current APRS-IS will be lost thus making a next-generation APRS-IS very iffy.

I repeat my offer to assemble a current APRS-IS specification in a similar manner to what Ian did with the APRS specification. To do this, however, will require an organized effort on the parts of all of the APRS server authors and IGate authors.

We have a working system today. I would like it to continue to improve in reliability and features, but this takes a coordinated effort. I don't believe it can be done by people unilaterally implementing their own agendas.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

96. [aprsspec] Re: APRS-IS and IGate Specifications

From: "Roger Bille" <roger.bille@telia.com>
Date: Tue, 28 May 2002 18:56:44 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81645-2002.05.28-12.31.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Pete,

 I think it is a good idea to have the current authors of server/igate to document the existing APRS-IS specification. However when going to next step of defining the future to have a working group of only software developer is too narrow. It is important to have a broader group with representants for the different groups:

    APRS IS Server developers
    Igate developers
    Digipeater sysop
    Users
    International representatives

 This is also true for the the normal APRS Spec working group. One important thing is that the working group should represent the users/developers etc and not everybody can be a members.

 All,

 I suggest we accept Pete's offer to work with the developers to document the current APRS IS spec and agree on a deadline when this should be finished (Pete should let us know how long time he need). In parallel we should agree who should be represented in the APRS IS working group for the new specification and give that team the objectives. These include what the current problems are etc.

 The following question will be if we should have 1 or 2 working groups, one for APRS IS spec and one for APRS Spec. But the members in the groups should be selected using same crateria as above.

 73 de sm5nrk/Roger

----- Original Message -----
From: "AE5PL Lists" <HamLists@ametx.com>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Tuesday, May 28, 2002 5:51 PM
Subject: [aprsspec] APRS-IS and IGate Specifications

> If attempts to unilaterally create specifications with preset agendas
> and add "features" to the APRS-IS data stream continue, then I hope the
> people that do this realize that instead of helping APRS-IS, they are
> most likely going to create a bigger mess. As it stands today, APRS-IS
> is, for the most part, working and working well. I would think that
> before rushing headlong into "fixes" and "enhancements", we, the amateur
> radio community, would like to first have a detailed specification of
> what exists today and what is supposed to exist (based on the APRS
> specification) today. IMO, this APRS-IS specification should originate
> from the authors of APRS servers and authors of IGates as they should
> have the best knowledge of how their software is designed and how the
> current APRS-IS is architected. I would hope that they also have a firm
> grasp of the APRS specification.
>
> Once this is done, the working group of authors described above should
> look at enhancements on an individual basis, reviewing compatibilities
> with the APRS-IS specification, compatibilities with the APRS
> specification, restrictions, benefits, etc. Also, the working group
> could take on the task of defining a next-generation APRS-IS if deemed
> necessary. But if the task of defining a next-generation APRS-IS is
> done before a valid current APRS-IS specification is finished, most of
> the knowledge gained from the current APRS-IS will be lost thus making a
> next-generation APRS-IS very iffy.
>
> I repeat my offer to assemble a current APRS-IS specification in a
> similar manner to what Ian did with the APRS specification. To do this,
> however, will require an organized effort on the parts of all of the
> APRS server authors and IGate authors.
>
> We have a working system today. I would like it to continue to improve
> in reliability and features, but this takes a coordinated effort. I
> don't believe it can be done by people unilaterally implementing their
> own agendas.
>
> 73,
>
> Pete Loveall AE5PL
> http://www.ae5pl.net
> mailto:pete@ae5pl.net
>
>
> ---
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> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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97. [aprsspec] Re: APRS-IS and IGate Specifications

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Tue, 28 May 2002 13:28:17 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81662-2002.05.28-14.04.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Good points, Roger.

> -----Original Message-----
> From: Roger Bille [mailto:roger.bille@telia.com]
> Posted At: Tuesday, May 28, 2002 11:57 AM
> Subject: [aprsspec] Re: APRS-IS and IGate Specifications
>
> group. One important thing is that the working group should
> represent the users/developers etc and not everybody can be a members.

This is an important point. The working group needs to be kept to a

reasonable size.

> when this should be finished (Pete should let us know how
> long time he need). In parallel we should agree who should be

This will depend on the creation and participation of the initial
APRS-IS working group. I can create a rough draft rather quickly, but I
would consider it of no value unless the other developers review,
modify, and otherwise revise it to more accurately reflect a true
specification.

> The following question will be if we should have 1 or 2
> working groups, one for APRS IS spec and one for APRS Spec.
> But the members in the groups should be selected using same
> crateria as above.

IMO, there should be two groups. The APRS WG consists primarily of
people that are focused on the tactical aspects of APRS that most
affects client software and hardware. The APRS-IS WG should consist of
people who are more focused on the internetworking and networking
aspects that the Internet medium facilitates which most affects IGates
and APRS servers. Both working groups should, of course, work closely
together to ensure there is no divergence in either specification.
Basically, the difference between the two groups would be in how the
various expertise is weighted.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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98. [aprsspec] Re: APRS-IS and IGate Specifications

From: "Roger Bille" <roger.bille@telia.com>
Date: Tue, 28 May 2002 21:10:43 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81673-2002.05.28-14.45.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Pete,

> IMO, there should be two groups. The APRS WG consists primarily of
> people that are focused on the tactical aspects of APRS that most
> affects client software and hardware. The APRS-IS WG should consist of
> people who are more focused on the internetworking and networking
> aspects that the Internet medium facilitates which most affects IGates
> and APRS servers. Both working groups should, of course, work closely
> together to ensure there is no divergence in either specification.
> Basically, the difference between the two groups would be in how the
> various expertise is weighted.

 Didn't think about that, I now fully agree that it should be 2 groups.

 Roger

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99. [aprsspec] aprsd215b1 up on wa4dsy.net

From: Dale Heatherington <dale@wa4dsy.net>
Date: Tue, 28 May 2002 16:54:25 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-81679-2002.05.28-16.30.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Aprsd server wa4dsy.net is now running a experimental
version of aprsd215b1. The biggest change is the addition
of a Time_To_Live counter at the end of the AX25 path and
preceeding it is an identifier that shows where the packet
came from. This is explained in more detail below.

This version honors RFONLY and NOGATE by dropping them.

EH? and cmd: packets are rejected.

Another change removes the server status messages from
ports 1313, 1314 and the outgoing Hub connections.
When users first connect and logon they alone will see
the usual status messages. The messages will not be
broadcast to other 1313 and 1314 users. Other ports
are unchanged.

There are a boatload of other little bug fixes but these
are the biggest and most visible. I don't consider this
stable enough to release as a beta yet. I invite you
to logon and observe the data stream. Let me know it
you notice anything screwed up or have a suggestion.

Dale
WA4DSY

Packet Time-To-Live and source path insertions

To aid in determining where packets were inserted into the APRS
Internet stream aprsd 2.1.5 appends an identifier path element
at the end of the existing path if one is not already there.
The identifier string contents depend on the source of the packet
as follows:

Source	Identifier
Validated user	Users Login Call sign
APRS Hub	First 9 characters of it's domain name up to the 1st "."
TNC	The MYCALL string of the aprsd server
Internal	MYCALL

After the identifier string is appended aprsd appends a Time-To-Live
counter in the format:

I code digit - digit

The first character is always "I". The second character is a code that indicates
how to interpret the preceeding identifier path element. The possible codes
are C, R, S, U, I. Next is a digit indicating the inital value of Time-To-Live (TTL).
Next is a "-". The last digit is the TTL counter. It is decremented each
time it passes through an APRS Internet server that supports TTL.

Code	Source
C	Validated Client (User)
R	RF packet from local TNC
S	Server or Hub
U	UDP port on aprsd server
I	Internal status message from aprsd server

Here are some examples.
Assuming ttl is 5, MyCall is WA4DSY, Logged on user is WA4ABC, we are connected to
and receiving data from first.aprs.net and the path does NOT already have
an I or IxN-N (old software).

WA4ABC,IC5-5	from validated internet Client
WA4DSY,IR5-5	from local TNC (RF)
first,IS5-5	from data I get from connecting to Hub first.aprs.net
WA4DSY,IU5-5	from UDP port
WA4DSY,II1-1	from Internal source (status msg etc)

If the packet has an TTL path element on the end aprsd 2.1.5 checks for ZERO
(eg: IS5-0) and decrements it it's not. If the TTL value was zero upon arrival the
packet is discarded.

If a packet comes in from anywhere except the TNC and already has
a MYCALL,I on the end of the path aprsd 2.1.5 changes the I to Ix5-5 where

x indicates the source.

The path will be either zero or 2 elements longer than the original.

The default initial Time-To-Live value is 5 but can
be changed by adding "TimeToLive N" to the aprsd.conf file.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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June 2002

Original source file: aprsspec.0206
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0206

1. [aprsspec] Re: Object/Position equivalence.

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 11 Jun 2002 12:31:54 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Robert Bruninga <bruninga@usna.edu>, <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84390-2002.06.11-12.09.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Authors,

It has come to my attention that the equivalence of objects and stations
can be missinterpreted in the spec as written. APRS was designed with
no distinction between "stations" and "objects". The "object" format is
nothing more than an additional way of reporting the position of
something with a given "label". It is only the exact "label" of the
thing that is unique..

If a TNC is reporting the position, then usually the MYCALL of the TNC is
given the callsign which will be used as the "label" for example ABCXYZ.
If however ABCXYZ is not the call of the TNC, yet that station wants to
report the position of ABCXYZ, then the OBJECT format was designed for
this purpose which can allow any "named" thing to be reported without
having to change the MYCALL. But on receipt, the thing named "ABCXYZ" is
equivalent no matter what format reported it. The only slight difference
is that for accountability purposes, we need to keep track of who
is responsible for, and uploaded, the object.

Now the significance of the equivalence of all reports of "ABCXYZ" arises
because the basis of APRS is as a tactical real-time display system, and
is supposed to let the operators maintain the "global" tactial display
properly, (Global here being the view that everyone has of the event)...
So the importance of the equivalence of all reports of "ABCXYZ" no matter
what format is used can be illustrated by the following two examples:

> Example 1, When the lead tracker running the callsign of LEAD
> dies, then it will remain stuck on everyone's map. But a new object
> labled LEAD can then be manually moved about the course to keep
> everyone's maps updated. The new object named LEAD should completely
> replace the previous LEAD. They are identical. You should not
> maintain objects and stations separately with the same name.
> In this case one LEAD would remain stuck where the LEAD TNC died,
> and the other would move, but viewers of the map will see two
> identical objects, one in the right place and one in the wrong place.
> This is not good.

> Example 2, A kenwood tracker running as WKNXYZ signals an
> emergency. In all the confusion and bedlam at his scene, he turns
> off the radio and forgets to cancel the emergency, and then is
> driven to the hospital. WKNXYZ is still showing at the bottom of
> the ravine with an EMERGENCY on every map for 200 miles; yet he is
> safely now in a hospital 30 miles away. The equivalence of
> stations and objects was designed just for that kind of situation.
> Anyone with fresh knowledge on the situation can then kill that old
> "station" from everyone's map by just sending out a KILL-OBJECT packet
> for WKNXYZ...

In summary, APRS operators who manually move things around an event map
need to be able to move anything that is in the wrong place, not just
"objects"... and have everyone's map match the intended display of the
event. The elements of this design objective were:

1) Things transmitted in the "object" format should always be associated
with the callsign of the SENDING station for accountability and system
integrity.

2) Otherwise, Objects are no different from any other APRS position
report. That means:

   * An incoming OBJECT replaces any occurence of the same-name
   * An incoming POSITION replaces any occurence of the same-name
   * A KILL OBJECT format kills any occurence of the same-name
   * Name comparison is case sensitive. "WB4APR" does not equal "wb4apr"

I just thought I would clarify this point, becase someone has pointed out
that this detail of APRS design does not explicitly come across in the
spec as written

de WB4APR, Bob

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2. [aprsspec] Re: APRS TOCALLs and software versions (June 2002 revision)

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 12 Jun 2002 17:51:15 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84591-2002.06.12-17.27.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here is the current list of APRS TOcalls and Version nomenclature that I
have updated.

> APA A-Filter, Alinco, etc
>   APAFxx AFilter.
>   APAGxx AGATE
>   APAXxx AFilterX.
>   APAHxx AHub
> APB avail
> APC Windows CE, etc
> APD APRSd, etc
      APDTxx APRStouch Tone (DTMF)
> APE avail
> APF avail
> APG Gates, etc
> APH HamHud, etc
> API Icom, etc
>   APICQx for ICQ
> APJ JavaAPRS,JeAPRS,etc
> APK Kenwood, etc
>   APK0xx THD7's
>   APK1xx D700's
> APL Liunx applications
> APM MacAPRS, etc
> APN Network nodes, digis, etc
>   APNDxx DIGI_NED
>   APNUxx UIdigi
> APO APRSpoint
> APP pocketAPRS, etc
> APQ avail
> APR APR8xx APRSdos,etc
>   APRDxx APRSdata, APRSdr
>   APRKxx APRStk
>   APRS   Generic, (obsolete. Digis should use APNxxx instead)
>   APRXxx APRSmax
>   APRTLM used my MIM's and Mic-lites, etc
> APS APRS+SA, etc
> APT TinyTrack
>   APTTxx Tiny Track
>   APT2xx Tiny Track II
>   APTAxx K4ATM's tiny track
>   APTV for ATV/APRN and SSTV applications
> APU UIview, etc
>   APU1xx UIview 16 bit applications
>   APU2xx UIview 32 bit apps
> APV avail
> APW WinAPRS, etc
> APX Xaprs, etc
> APY etc, Yeasu, etc
> APZ Experimental
>   APZ0xx Xastir
>   APZPAD Smart Palm
>
Authors with similar alphabetic requirements are encouraged to share
their address space with other software. Work out agreements amongst
yourselves and keep me informed.

de WB4APR, Bob

```
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```

3. [aprsspec] Re: APRS TOCALLs and software versions (June 2002 revision)

```
From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 12 Jun 2002 22:59:58 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84593-2002.06.12-17.36.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
In message <LYR26815-84591-2002.06.12-17.27.53--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
>Here is the current list of APRS TOcalls and Version nomenclature that I
>have updated.
>
[snip]
>> APU UIview, etc
>>     APU1xx UIview 16 bit applications
>>     APU2xx UIview 32 bit apps

I've also used APU3xx for an unproto terminal with some APRS
capabilities.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

---
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```

4. [aprsspec] APRS TOCALLs/versions (June 2002 2nd revision)

```
From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 13 Jun 2002 11:20:48 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84760-2002.06.13-10.58.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
THe copy from yesterday still did not have some of the feedback I had
received.  Here is the LATEST copy that I hope includes everyone's
requests:  It adds:

 APCY for the Cybiko
 APJA for JavAPRS
 APJE for JeAPRS
 APU3 for UIview terminal program

And it adds Xastir to the list under APX...

Here is the current list of APRS TOcalls and Version nomenclature that I
have updated.

 APA A-Filter, Alinco, etc
     APAFxx  AFilter.
     APAGxx  AGATE
     APAXxx  AFilterX.
     APAHxx  AHub
 APB avail
 APC Windows CE, etc
     APCYxx  Cybiko applications
 APD APRSd, etc
     APDTxx  APRStouch Tone (DTMF)
 APE avail
 APF avail
 APG Gates, etc
 APH HamHud, etc
 API Icom, etc
     APICQx for ICQ
 APJ JavaAPRS,JeAPRS,etc
     APJAxx JavAPRS
     APJExx JeAPRS
 APK Kenwood, etc
     APK0xx THD7's
```

```
    APK1xx D700's
 APL Liunx applications
 APM MacAPRS, etc
 APN Network nodes, digis, etc
     APNDxx DIGI_NED
     APNUxx UIdigi
 APO APRSpoint
 APP pocketAPRS, etc
 APQ avail
 APR APR8xx APRSdos,etc
     APRDxx APRSdata, APRSdr
     APRKxx APRStk
     APRS   Generic, (obsolete. Digis should use APNxxx instead)
     APRXxx APRSmax
     APRTLM used my MIM's and Mic-lites, etc
 APS APRS+SA, etc
 APT TinyTrack
     APTTxx Tiny Track
     APT2xx Tiny Track II
     APTAxx K4ATM's tiny track
     APTV for ATV/APRN and SSTV applications
 APU UIview, etc
     APU1xx UIview 16 bit applications
     APU2xx UIview 32 bit apps
     APU3xx UIview terminal program
 APV avail
 APW WinAPRS, etc
 APX Xaprs, Xastir, etc
 APY etc, Yeasu, etc
 APZ Experimental
     APZ0xx Xastir
     APZPAD Smart Palm

Authors with similar alphabetic requirements are encouraged to share
their address space with other software.  Work out agreements amongst
yourselves and keep me informed.

de WB4APR, Bob



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```

5. [aprsspec] 3rd party packet handling

```
From: Dale Heatherington <dale@wa4dsy.net>
Date: Thu, 13 Jun 2002 13:35:02 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84786-2002.06.13-13.11.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
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During my efforts to flush out bugs in aprsd
I've found a problem in it's handing of 3rd party
packets. I can't fix it until I know exactly how
they should be handled. This is only about the
current state of affairs and not possible future
means of handling these.

Issue #1:
To prevent RF=>Inet=>RF loops 3rd party packets
must be treated differenty. They can be stopped
from entering the Internet from RF or they can be
stopped from going to RF from the Internet or both.
Current practice varies:

Mac/WinAPRS passes 3rd party pkts to the Internet from RF.

Aprsd kills 3rd party pkts from RF but allows them from
Internet sources. It also will re-format a 3rd party
pkt AGAIN if it thinks that packet should go to RF.

(most likely a bad thing)

Others???

Issue #2 involves the "TCPIP" in the 3rd party header.
Should it have and * or not. Current practice varies.

WB5BBW>APX112,WD5IYT-2,K5TXU-1*,WIDE/1:}TR8FPH>TR8SL,TCPIP,WB5BBW*::TR8CA   :ack25

W8ID>APD214,KB8YVY,K1DE-5*:}W8ID-4>APW251,TCPIP*,W8ID*:=4106.46N/08312.00WoPHG6360/WinAPRS 2.5.1

N8NOE>APM361,RELAY*,WIDE2-2:}K4PJY>APRS,TCPIP,N8NOE*:>Messaging is OFF. phil@K4PJY.net

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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6. [aprsspec] Re: 3rd party packet handling

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 13 Jun 2002 14:17:15 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84789-2002.06.13-13.54.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 13 Jun 2002, Dale Heatherington wrote:

> Issue #2 involves the "TCPIP" in the 3rd party header.
> Should it have and * or not. Current practice varies.

As always, my opinion is that it should be marked with a "*" once that
field has been "used" to remain consistent with the has-been-used bit
inherent in the AX.25 header format.

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Dual-homed APRS Hosts

From: Joel Maslak <jmaslak@antelope.net>
Date: Thu, 13 Jun 2002 21:15:51 -0600 (MDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84862-2002.06.13-22.52.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The current internet server system has a problem when a user has both RF
and Inet connectivity (I believe WinAPRS has the problem I'm about to
describe).

Basically, user issues a query, such as "?APRS?" or "?IGATE?". This query
goes out via BOTH the inet stream and RF.

A nearby IGATE will see that that station is in it's "heard" list and send
the responses from the INTERNET ?IGATE? query back to RF... Obviously,
this can be a very bad thing, as there are hundreds of responses now going
out over the local RF net! Other bad things can happen when the IGATE
itself gates someone's query to the internet (IMHO, this should not be
allowed by IGates).

I've modified my copy of APRSD to drop all queries, no matter what the
origin. But I can't stop the responses to the queries, since the formats
vary so much. So the dual-homed problem still exists. I've seen cases
where these dual-homed systems caused 15 minutes of solid traffic due to
the hundreds and thousands of responses, and the digipeating of those
responses once gated to RF. I've banned a couple of users at my IGates
for short periods of time due to their usage of queries.

My proposal:

1) IGate developers ensure that their software does NOT send queries
from RF to the Internet - EVER.

2) End-user software developers require seperate SSIDs on each "interface"
on a multi-homed system, be that a RF, Inet, LAN, or whatever interface.
Packets originating from a host will use the address of the interface
which sent the packet. Thus, if someone sent a query out to the internet,
the sending callsign won't be in the heard list of the local IGATEs, thus
the responses won't get gated to RF - clogging the system.

--
Joel

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] RE: Dual-homed APRS Hosts

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Thu, 13 Jun 2002 22:33:05 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84865-2002.06.13-23.09.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The problem you describe is unique to aprsD. Dale has corrected it in
the latest version of aprsD. Basically, queries being passed from RF to
APRS-IS should not be a problem as all defined generic queries are
supposed to be responded to with non-message packets which will not be
gated back to RF. However, current versions of aprsD (except for Dale's
beta version) respond to ?IGATE? with a message. This causes the
problem of a mass of messages being gated back to RF.

Instead of blocking all queries (I hope you are not blocking directed
queries), aprsD users should upgrade to Dale's latest version to
eliminate message responses to generic queries.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Joel Maslak [mailto:jmaslak@antelope.net]
> Posted At: Thursday, June 13, 2002 10:17 PM
> Subject: [aprsspec] Dual-homed APRS Hosts
>
> Basically, user issues a query, such as "?APRS?" or
> "?IGATE?". This query
> goes out via BOTH the inet stream and RF.

> out over the local RF net! Other bad things can happen when the IGATE
> itself gates someone's query to the internet (IMHO, this should not be
> allowed by IGates).
>
> I've modified my copy of APRSD to drop all queries, no matter what the

> 1) IGate developers ensure that their software does NOT send queries
> from RF to the Internet - EVER.
>
> 2) End-user software developers require seperate SSIDs on
> each "interface"
> on a multi-homed system, be that a RF, Inet, LAN, or whatever
> interface.
> Packets originating from a host will use the address of the interface
> which sent the packet. Thus, if someone sent a query out to
> the internet,

> the sending callsign won't be in the heard list of the local
> IGATEs, thus
> the responses won't get gated to RF - clogging the system.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

9. [aprsspec] Re: Dual-homed APRS Hosts

From: Roger Barker <roger@peaksys.co.uk>
Date: Fri, 14 Jun 2002 08:27:43 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84903-2002.06.14-03.05.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-84862-2002.06.13-22.52.36--roger#peaksys.co.uk@list
s.tapr.org>, Joel Maslak <jmaslak@antelope.net> writes
>The current internet server system has a problem when a user has both RF
>and Inet connectivity (I believe WinAPRS has the problem I'm about to
>describe).
>
>Basically, user issues a query, such as "?APRS?" or "?IGATE?". This query
>goes out via BOTH the inet stream and RF.
[snip]

>2) End-user software developers require seperate SSIDs on each "interface"
>on a multi-homed system, be that a RF, Inet, LAN, or whatever interface.

If that means what I think it means, then each interface effectively
becomes a separate station, which seems to me to be a big hammer to
crack a small nut.

Won't this fix the problem -

1. IGATEs never respond to queries from the internet.

2. IGATEs never gate queries from the internet to RF, which in any case
will only ever happen if all traffic from a callsign is being "forced"
through by some selection mechanism.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Re: Dual-homed APRS Hosts

From: Roger Barker <roger@peaksys.co.uk>
Date: Fri, 14 Jun 2002 09:30:26 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84908-2002.06.14-04.08.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-84903-2002.06.14-03.05.16--roger#peaksys.co.uk@list
s.tapr.org>, Roger Barker <roger@peaksys.co.uk> writes
[snip]
>
>2. IGATEs never gate queries from the internet to RF, which in any case
>will only ever happen if all traffic from a callsign is being "forced"
>through by some selection mechanism.

I should, of course, have said "general queries".

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

11. [aprsspec] RE: Dual-homed APRS Hosts

From: Joel Maslak <jmaslak@antelope.net>
Date: Fri, 14 Jun 2002 06:44:05 -0600 (MDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84918-2002.06.14-08.21.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 13 Jun 2002, AE5PL Lists wrote:

> The problem you describe is unique to aprsD. Dale has corrected it in
> the latest version of aprsD. Basically, queries being passed from RF to
> APRS-IS should not be a problem as all defined generic queries are
> supposed to be responded to with non-message packets which will not be
> gated back to RF. However, current versions of aprsD (except for Dale's
> beta version) respond to ?IGATE? with a message. This causes the
> problem of a mass of messages being gated back to RF.

What is gained by not blocking undirected queries, if the responses won't
be heard regardless?

Choice 1: Block the responses to undirected queries
Pro: Lets the query get to the Inet even though most responses won't be
heard. (seems pointless to me)
Con: There are going to be lots of old APRSD stations around for a
while... I'm also not positive only APRSD does this particular behaviour.
So, basically, today you would still clog your RF stream if you didn't
block the undirected queries. But this is a problem different then the
one I was trying to address.

Choice 2: Block the undirected query requests
Pro: Let's the local system operators protect their own RF LAN without
relying on other people being "on the ball".
Con: The query obviously never gets to the Inet...

--
Joel Maslak
N7XUC

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] Re: Dual-homed APRS Hosts

From: Dale Heatherington <dale@wa4dsy.net>
Date: Fri, 14 Jun 2002 09:16:27 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84926-2002.06.14-08.53.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

When released aprsd215 will not pass ?IGATE? queries
from RF to Internet. It will respond to a ?IGATE?
query from RF with a single non-directed response
back to RF. So, 1 query generates 1 response.

Directed queries are ignored.
Non-directed queries from the Internet generate
a non-directed response back to the Internet.

Dale
WA4DSY

On Thursday 13 June 2002 11:15 pm, Joel Maslak wrote:
> The current internet server system has a problem when a user has both RF
> and Inet connectivity (I believe WinAPRS has the problem I'm about to
> describe).
>
> Basically, user issues a query, such as "?APRS?" or "?IGATE?". This query
> goes out via BOTH the inet stream and RF.
>
> A nearby IGATE will see that that station is in it's "heard" list and send
> the responses from the INTERNET ?IGATE? query back to RF... Obviously,
> this can be a very bad thing, as there are hundreds of responses now going
> out over the local RF net! Other bad things can happen when the IGATE
> itself gates someone's query to the internet (IMHO, this should not be
> allowed by IGates).

> I've modified my copy of APRSD to drop all queries, no matter what the
> origin. But I can't stop the responses to the queries, since the formats
> vary so much. So the dual-homed problem still exists. I've seen cases
> where these dual-homed systems caused 15 minutes of solid traffic due to
> the hundreds and thousands of responses, and the digipeating of those
> responses once gated to RF. I've banned a couple of users at my IGates
> for short periods of time due to their usage of queries.
>
> My proposal:
>
> 1) IGate developers ensure that their software does NOT send queries
> from RF to the Internet - EVER.
>
> 2) End-user software developers require seperate SSIDs on each "interface"
> on a multi-homed system, be that a RF, Inet, LAN, or whatever interface.
> Packets originating from a host will use the address of the interface
> which sent the packet. Thus, if someone sent a query out to the internet,
> the sending callsign won't be in the heard list of the local IGATEs, thus
> the responses won't get gated to RF - clogging the system.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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13. [aprsspec] RE: Dual-homed APRS Hosts

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 14 Jun 2002 08:30:17 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84927-2002.06.14-09.06.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Joel Maslak [mailto:jmaslak@antelope.net]
> Posted At: Friday, June 14, 2002 7:46 AM
> Subject: [aprsspec] RE: Dual-homed APRS Hosts
>
> Con: There are going to be lots of old APRSD stations around for a
> while... I'm also not positive only APRSD does this
> particular behaviour.
> So, basically, today you would still clog your RF stream if you didn't
> block the undirected queries. But this is a problem
> different then the
> one I was trying to address.
>
> Choice 2: Block the undirected query requests
> Pro: Let's the local system operators protect their own RF LAN without
> relying on other people being "on the ball".
> Con: The query obviously never gets to the Inet...

As you noted, there will be a lot of old aprsD stations around for a
while. What you didn't note is that there will be a factor of at least
10 times as many "old" IGate stations around for even longer. Hence,
your solution is even less likely to be fully implemented. I don't have
any problem with IGates not gating general queries from RF to the
Internet (they shouldn't be gated from the Internet to RF as they are
not messages). But, it should not be assumed that this will
automatically fix things due to older software continuing to be in use.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

14. [aprsspec] Re: Dual-homed APRS Hosts

From: Bill Diaz <william.diaz@attbi.com>
Date: Fri, 14 Jun 2002 08:52:45 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84934-2002.06.14-09.29.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dale,
  What will the non-directed response look like?

Bill KC9XG

On Friday, June 14, 2002 08:16, Dale Heatherington [SMTP:dale@wa4dsy.net] wrote:
>
> When released aprsd215 will not pass ?IGATE? queries
> from RF to Internet. It will respond to a ?IGATE?
> query from RF with a single non-directed response
> back to RF. So, 1 query generates 1 response.

> Directed queries are ignored.
> Non-directed queries from the Internet generate
> a non-directed response back to the Internet.

> Dale
> WA4DSY
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

15. [aprsspec] 3rd Party

From: Dale Heatherington <dale@wa4dsy.net>
Date: Fri, 14 Jun 2002 10:03:22 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84936-2002.06.14-09.40.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Assume we are a hub/server and receive a 3rd party packet.

>From RF:
Should we:
(A) kill it.(aprsd style)
(B) pass it on to the internet unmodified (Mac/WinAprs, Xastir)
(C) Kill it only if it has been igated to RF from Internet (TCPIP in hdr), else do (B)
(D) If it has not igated (no TCPIP) then convert from 3rd party to normal
    and send to Internet , else do (B) or kill.

(E) Other

>From Internet:
(A) Kill it.
(B) pass it on unmodified (current practice)
(C) Other

Our Inet to RF filter says it should go to RF
should we:

(A) kill it ?
(B) pass it on as-is (eg: strip path and send data to TNC)
(C) Kill it only if it's been igated to RF before (has TCPIP in header)
(D) wrap it in another 3rd party header   (aprsd does this now)
(E) Other

Note that current practice has a literal loop hole. 3rd party pkts can re-enter
the Internet stream via igates such as WinAPRS and be reinjected into
the RF domain via aprsd.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

16. [aprsspec] RE: 3rd Party

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 14 Jun 2002 09:35:29 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84939-2002.06.14-10.59.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Dale Heatherington [mailto:dale@wa4dsy.net]
> Posted At: Friday, June 14, 2002 9:05 AM
> Subject: [aprsspec] 3rd Party
>
> Assume we are a hub/server and receive a 3rd party packet.
> From RF:
> Should we:
> (B) pass it on to the internet unmodified (Mac/WinAprs, Xastir)
> (D) If it has not igated (no TCPIP) then convert from 3rd
> party to normal
>   and send to Internet , else kill.

I think D best matches what has been discussed here. Note that it
should not be gated to the Internet if it came from an IGate (TCPIP in
the third-party header).

> From Internet:
> (A) Kill it.

No third-party packets should exist on APRS-IS. They should have been
modified per D above prior to gating to APRS-IS.

> Our Inet to RF filter says it should go to RF

Interesting question. However, per the above paragraph, if it is a 3rd
party packet, it should be killed. If it is a standard packet, it
should be gated with a 3rd party header if it was not already heard by
the IGate on RF. This will prevent it from being gated back to the
Internet since it would have TCPIP in the 3rd party header.

> Note that current practice has a literal loop hole. 3rd party
> pkts can re-enter
> the Internet stream via igates such as WinAPRS and be reinjected into
> the RF domain via aprsd.

This is why we are filtering out all 3rd party packets on APRS-IS. If
the packet modification shown in D above is done, then this filtering
can remain in place but non-IGate originated 3rd party packets will
still be properly represented on APRS-IS.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

17. [aprsspec] Re: Dual-homed APRS Hosts

From: Dale Heatherington <dale@wa4dsy.net>
Date: Fri, 14 Jun 2002 10:25:56 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84941-2002.06.14-11.03.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Friday 14 June 2002 09:52 am, Bill Diaz wrote:
> Dale,
>   What will the non-directed response look like?
>
> Bill KC9XG

Here's one from my test and dev. system.

testaprsd>APD215,TCPIP*:<IGATE,MSG_CNT=0,LOC_CNT=0,CALL=WA4DSY-3,
LOCATION=Atlanta_GA,HOST=lab1.wa4dsy.net,IP=216.27.174.141,
EMAIL=sysop@myisp.net,VERS=aprsd 2.1.5b1.6

Note. It's really one line.

>

> On Friday, June 14, 2002 08:16, Dale Heatherington [SMTP:dale@wa4dsy.net] wrote:
> > When released aprsd215 will not pass ?IGATE? queries
> > from RF to Internet. It will respond to a ?IGATE?
> > query from RF with a single non-directed response
> > back to RF. So, 1 query generates 1 response.
> >
> > Directed queries are ignored.
> > Non-directed queries from the Internet generate
> > a non-directed response back to the Internet.
> >
> > Dale
> > WA4DSY

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

18. [aprsspec] RE: 3rd Party

From: Bill Vodall - WA7NWP <wa7nwp@yahoo.com>
Date: Fri, 14 Jun 2002 09:05:19 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84949-2002.06.14-11.43.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
> > Assume we are a hub/server and receive a 3rd party packet.
> > From RF:
> > Should we:
> > (B) pass it on to the internet unmodified (Mac/WinAprs, Xastir)
> > (D) If it has not igated (no TCPIP) then convert from 3rd
> > party to normal
> >   and send to Internet , else kill.
>
>I think D best matches what has been discussed here. Note that it
>should not be gated to the Internet if it came from an IGate (TCPIP in
>the third-party header).

I have an additional "possible" use of 3rd party packets.

I was using Digi_ned to "gate" HF 10.151 packets to the local two meter network. They
were being broadcast on two meters with a slightly modified path showing they'd
come through my system.

What made it interesting was that I wasn't really planning to be a 10.151 transmitter.

So I was sending positions of stations around the country out on two meters,
Igates would see them and assume there were "local".   So when somebody sent
a message to one of these HF stations - all the local Igates would gate the message
from Internet to our local RF system.

I think the solution, given the current discussions, is to modify digi_ned so it can broadcast
  with 3rd party format.   Then the HF stations can show up on the local RF and will be
gated to the Internet (no TCPIP in the path) yet the Igates won't consider them as locals.

Bill - WA7NWP

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

19. [aprsspec] Re: Dual-homed APRS Hosts

From: Bill Diaz <william.diaz@attbi.com>
Date: Fri, 14 Jun 2002 11:40:09 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84953-2002.06.14-12.17.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dale,
 The APRS Spec indicates that the response to an ?IGATE? query should
contain the following example response <IGATE,MSG_CNT=43,LOC_CNT=14

Presently, an ?IGATE? query can result in an enormous amount of data being
sent to the IS. Some of the proposed improvements to the IS would reduce
the number of ?IGATE? requests but we should consider limiting the
responses to the format provided in the APRS Spec since there are quite a
few users of the APRS IS who are charged by the volume of data received and
sent.

aprsd15 ?IGATE? response has a total of 168 bytes in your example. Is it
really necessary to append other information to the response?

Bill KC9XG

On Friday, June 14, 2002 09:26, Dale Heatherington [SMTP:dale@wa4dsy.net]
wrote:
> On Friday 14 June 2002 09:52 am, Bill Diaz wrote:
> > Dale,
> >   What will the non-directed response look like?
> >
> > Bill KC9XG
>
> Here's one from my test and dev. system.
>
> testaprsd>APD215,TCPIP*:<IGATE,MSG_CNT=0,LOC_CNT=0,CALL=WA4DSY-3,
> LOCATION=Atlanta_GA,HOST=lab1.wa4dsy.net,IP=216.27.174.141,
> EMAIL=sysop@myisp.net,VERS=aprsd 2.1.5b1.6
>
> Note. It's really one line.
>
>
> >
>
>
> > On Friday, June 14, 2002 08:16, Dale Heatherington
[SMTP:dale@wa4dsy.net] wrote:
> > > When released aprsd215 will not pass ?IGATE? queries
> > > from RF to Internet. It will respond to a ?IGATE?
> > > query from RF with a single non-directed response
> > > back to RF. So, 1 query generates 1 response.
> > >
> > > Directed queries are ignored.
> > > Non-directed queries from the Internet generate
> > > a non-directed response back to the Internet.
> > >
> > > Dale
> > > WA4DSY
>
> --
> Dale Heatherington
> Web Page http://www.wa4dsy.net
> Sent by KMail for Linux
>
>
>
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20. [aprsspec] Re: Dual-homed APRS Hosts

From: Dale Heatherington <dale@wa4dsy.net>
Date: Fri, 14 Jun 2002 13:47:35 -0400

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84976-2002.06.14-13.24.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Friday 14 June 2002 12:40 pm, Bill Diaz wrote:
> Dale,
> The APRS Spec indicates that the response to an ?IGATE? query should
> contain the following example response <IGATE,MSG_CNT=43,LOC_CNT=14
>
> Presently, an ?IGATE? query can result in an enormous amount of data being
> sent to the IS. Some of the proposed improvements to the IS would reduce
> the number of ?IGATE? requests but we should consider limiting the
> responses to the format provided in the APRS Spec since there are quite a
> few users of the APRS IS who are charged by the volume of data received and
> sent.
>
> aprsd15 ?IGATE? response has a total of 168 bytes in your example. Is it
> really necessary to append other information to the response?
>
> Bill KC9XG

No. However, it conveys additional information about igates/Servers within
range of the RF station. It was my understanding that additional
TOKEN=VALUE pairs could be defined.

Of what use is MSG_CNT and LOC_CNT?

What sort of information would be useful?

>
>
> On Friday, June 14, 2002 09:26, Dale Heatherington [SMTP:dale@wa4dsy.net]
>
> wrote:
> > On Friday 14 June 2002 09:52 am, Bill Diaz wrote:
> > > Dale,
> > >   What will the non-directed response look like?
> > >
> > > Bill KC9XG
> >
> > Here's one from my test and dev. system.
> >
> > testaprsd>APD215,TCPIP*:<IGATE,MSG_CNT=0,LOC_CNT=0,CALL=WA4DSY-3,
> > LOCATION=Atlanta_GA,HOST=lab1.wa4dsy.net,IP=216.27.174.141,
> > EMAIL=sysop@myisp.net,VERS=aprsd 2.1.5b1.6
> >
> > Note. It's really one line.
> >
> > > On Friday, June 14, 2002 08:16, Dale Heatherington
>
> [SMTP:dale@wa4dsy.net] wrote:
> > > > When released aprsd215 will not pass ?IGATE? queries
> > > > from RF to Internet. It will respond to a ?IGATE?
> > > > query from RF with a single non-directed response
> > > > back to RF. So, 1 query generates 1 response.
> > > >
> > > > Directed queries are ignored.
> > > > Non-directed queries from the Internet generate
> > > > a non-directed response back to the Internet.
> > > >
> > > > Dale
> > > > WA4DSY

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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21. [aprsspec] Re: Dual-homed APRS Hosts

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 14 Jun 2002 12:59:31 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84980-2002.06.14-13.36.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Dale Heatherington [mailto:dale@wa4dsy.net]
> Posted At: Friday, June 14, 2002 12:49 PM
> Subject: [aprsspec] Re: Dual-homed APRS Hosts
>
> range of the RF station. It was my understanding that additional
> TOKEN=VALUE pairs could be defined.

You are correct, Dale. The spec does not limit you to MSG_CNT and LOC_CNT. It just says that those are "currently defined capabilities".

> Of what use is MSG_CNT and LOC_CNT?

These were of more importance in earlier times to let people know how many stations the IGate thought should be gated to. It also helped to know how many messages the IGate had gated. These are purely informational.

> What sort of information would be useful?

?IGATE? queries do not occur very often so undirected responses do not greatly impact APRS-IS performance. However, the directed responses have been a problem for the RF side of things but your modifications remove that as an issue.

The information contained in your station capabilities packet is useful. I am sure other things could be determined useful, as well. I would say that this is pretty open-ended according to the spec. You don't want it to be too long, but it is up to the various authors such as yourself to determine what other capabilities would be useful.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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22. [aprsspec] Re: Dual-homed APRS Hosts

From: "Tim Cunningham" <tim_cunningham@mindspring.com>
Date: Fri, 14 Jun 2002 13:03:18 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84983-2002.06.14-13.43.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

LOC_CNT tells me that my RF port is working or at least hearing something on my IGATE when I am on the road. If I see the number drop significantly I know there is an RF, TNC, or communication problem with the computer to the RF side of the port.

MSG_CNT is another indicator to help diagnose a problem remotely. If I see the count increasing and my LOC_CNT is failing, the remote diagnosis would be that the RF port is not working but the TCP/IP port is working.

Are they useful? Only if there is a problem and you are trying to determine which indicators are abnormal. My IGATE is remotely located so I rely on these and other parameters I can request remotely to give a clue if there is any trouble with the gateways operation.

Tim - N8DEU

----- Original Message -----

From: "Dale Heatherington" <dale@wa4dsy.net>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Friday, June 14, 2002 12:47 PM
Subject: [aprsspec] Re: Dual-homed APRS Hosts

> On Friday 14 June 2002 12:40 pm, Bill Diaz wrote:
> > Dale,
> > The APRS Spec indicates that the response to an ?IGATE? query should
> > contain the following example response <IGATE,MSG_CNT=43,LOC_CNT=14
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> > Presently, an ?IGATE? query can result in an enormous amount of data
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> > the number of ?IGATE? requests but we should consider limiting the
> > responses to the format provided in the APRS Spec since there are quite
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> > sent.
> >
> > aprsd15 ?IGATE? response has a total of 168 bytes in your example. Is
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> > really necessary to append other information to the response?
> >
> > Bill KC9XG
>
> No. However, it conveys additional information about igates/Servers
within
> range of the RF station. It was my understanding that additional
> TOKEN=VALUE pairs could be defined.
>
> Of what use is MSG_CNT and LOC_CNT?
>
> What sort of information would be useful?
>
>
>
>
> >
> >
> > On Friday, June 14, 2002 09:26, Dale Heatherington
[SMTP:dale@wa4dsy.net]
> >
> > wrote:
> > > On Friday 14 June 2002 09:52 am, Bill Diaz wrote:
> > > > Dale,
> > > >   What will the non-directed response look like?
> > > >
> > > > Bill KC9XG
> > >
> > > Here's one from my test and dev. system.
> > >
> > > testaprsd>APD215,TCPIP*:<IGATE,MSG_CNT=0,LOC_CNT=0,CALL=WA4DSY-3,
> > > LOCATION=Atlanta_GA,HOST=lab1.wa4dsy.net,IP=216.27.174.141,
> > > EMAIL=sysop@myisp.net,VERS=aprsd 2.1.5b1.6
> > >
> > > Note. It's really one line.
> > >
> > > > On Friday, June 14, 2002 08:16, Dale Heatherington
> > >
> > > [SMTP:dale@wa4dsy.net] wrote:
> > > > > When released aprsd215 will not pass ?IGATE? queries
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> > > > > Directed queries are ignored.
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> > > > > a non-directed response back to the Internet.
> > > > >
> > > > > Dale
> > > > > WA4DSY
>
>
> --
> Dale Heatherington
> Web Page http://www.wa4dsy.net
> Sent by KMail for Linux

>
>
>
> ---
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23. [aprsspec] Re: Dual-homed APRS Hosts

From: Bill Diaz <william.diaz@attbi.com>
Date: Fri, 14 Jun 2002 13:08:44 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-84986-2002.06.14-13.45.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dale,

On Friday, June 14, 2002 12:48, Dale Heatherington [SMTP:dale@wa4dsy.net]
wrote:
> On Friday 14 June 2002 12:40 pm, Bill Diaz wrote:
> > Dale,
> > The APRS Spec indicates that the response to an ?IGATE? query should
> > contain the following example response <IGATE,MSG_CNT=43,LOC_CNT=14

> > Presently, an ?IGATE? query can result in an enormous amount of data
being
> > sent to the IS. Some of the proposed improvements to the IS would
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> > the number of ?IGATE? requests but we should consider limiting the
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> > few users of the APRS IS who are charged by the volume of data received
and
> > sent.

> > aprsd15 ?IGATE? response has a total of 168 bytes in your example. Is
it
> > really necessary to append other information to the response?
> >
> > Bill KC9XG

> No. However, it conveys additional information about igates/Servers
within
> range of the RF station. It was my understanding that additional
> TOKEN=VALUE pairs could be defined.

The original problem with responses to ?IGATE? queries from RF was that the
local channel would be overwhelmed with numerous lengthy replies. Very
easy to render a local RF Channels useless if even one of these queries is
passed to the Internet and lengthy responses are returned to RF.

Additonally, we need to consider the burden placed on restricted bandwidth
connections and the cost to some users for data delivered on the Internet.

> Of what use is MSG_CNT and LOC_CNT?

> What sort of information would be useful?

The information provided should be kept as short as reasonably practical.
 If users are allowed to add information to those responses, then we will
still see extremely long packets. Presently, not unusual to see responses
of 250+ bytes from some sysops. I think that most of the other IGATE
applications return only MSG_CNT and LOC_CNT..

Bill

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24. [aprsspec] Re: 3rd party

From: Dale Heatherington <dale@wa4dsy.net>
Date: Fri, 14 Jun 2002 18:34:48 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-85012-2002.06.14-18.11.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I tend to agree with Pete.
To summarize:

Igate receives 3rd party packet from RF.
Do this:
  If it's been igated (TCPIP in 3rd party path) kill it.
  If not, convert to normal and pass it to Internet.

Server receives 3rd party packet from another server or Igate.
Do this:
  Kill it.

This can produce a loop if
an application not playing by the rules
inserts a packet into RF from Internet without
TCPIP or TCPIP* in the 3rd party path and
the packet spends more than the duplicate
detector time limit in the RF domain before
it returns to the original Igate.
Are there any known apps that do not
insert TCPIP?

The current situation may be much worse
with most Igates passing 3rd party packets
to the Internet and aprsd possibly wrapping
them into another 3rd party packet and sending
them back to RF.

--
Dale Heatherington
Web Page http://www.wa4dsy
--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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25. [aprsspec] Re: 3rd party

From: Dale Heatherington <dale@wa4dsy.net>
Date: Sun, 16 Jun 2002 16:53:45 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-85313-2002.06.16-16.30.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

After some thought it seems it might
be of advantage to simplify the 3rd party
handling procedure.

Igate or server/hub receives a 3rd party packet
from anywhere.
Do this:
If it's been igated (TCPIP in 3rd party path) kill it.
If not, convert to normal and process as any normal packet.

My reasoning is as follows. 3rd party (3P) packets from
RF without TCPIP in the 3P header have not been
igated. Since 3P packets are not allowed on
the Internet System (IS) and there are useful
applications (according to Bob) that can only work by wrapping
data in 3P format, it's desirable to convert
them to normal format.

Most Igates currently pass all 3P packets to servers/hubs
unmodified. It can be assumed almost all came from RF.
If, instead of killing all of these packets, servers/hubs only
kill the ones with TCPIP (has been igated) and convert
the others to normal, we effectivly upgrade all the old
igates. They should be doing it themselves anyway.

Are there any technical or political reasons not to do this?

On Friday 14 June 2002 06:34 pm, Dale Heatherington wrote:
> I tend to agree with Pete.
> To summarize:
>
> Igate receives 3rd party packet from RF.
> Do this:
>   If it's been igated (TCPIP in 3rd party path) kill it.
>   If not, convert to normal and pass it to Internet.
>
> Server receives 3rd party packet from another server or Igate.
> Do this:
>   Kill it.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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26. [aprsspec] RE: aprsspec digest: June 16, 2002

From: sv1rd@nbg.gr
Date: Mon, 17 Jun 2002 09:48:20 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-85376-2002.06.17-02.25.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Maybe we need a switch.
There are 2 possibilities

1. Igate with Internet Connection
2. Igate serving a LAN without Internet Connection

I used aprsd in my shack with 3 clients without Internet connection
and no station or message transmitted fm local Igate received to my APRS
clients

Tasos sv1rd@qsl.net

-----Original Message-----

Subject: Re: 3rd party
From: Dale Heatherington <dale@wa4dsy.net>
Date: Sun, 16 Jun 2002 16:53:45 -0400
X-Message-Number: 1

After some thought it seems it might
be of advantage to simplify the 3rd party
handling procedure.

Igate or server/hub receives a 3rd party packet
from anywhere.

Do this:
If it's been igated (TCPIP in 3rd party path) kill it.
If not, convert to normal and process as any normal packet.

My reasoning is as follows. 3rd party (3P) packets from
RF without TCPIP in the 3P header have not been
igated. Since 3P packets are not allowed on
the Internet System (IS) and there are useful
applications (according to Bob) that can only work by wrapping
data in 3P format, it's desirable to convert
them to normal format.

Most Igates currently pass all 3P packets to servers/hubs
unmodified. It can be assumed almost all came from RF.
If, instead of killing all of these packets, servers/hubs only
kill the ones with TCPIP (has been igated) and convert
the others to normal, we effectivly upgrade all the old
igates. They should be doing it themselves anyway.

Are there any technical or political reasons not to do this?

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27. [aprsspec] PHG circles

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 24 Jun 2002 11:59:08 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Keith Sproul <ksproul@vger.rutgers.edu>,
        Mark Sproul <msproul@jove.rutgers.edu>,
        Mike Musick <mikemusick@earthlink.net>,
        Brent Hildebrand <bhildebrand@earthlink.net>,
        Roger Barker <roger@peaksys.co.uk>, "Curt Mills, WE7U" <we7u@mail.com>
Message-ID: <LYR11589-86455-2002.06.24-11.36.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Authors... Regarding PHG circles:

I think it is time to re-do how we display PHG circles on APRS maps.
The present formula is only an approximation and assumes a fixed station
without mobile multipath.

But Mobiles have multipath and the literature suggests an RMS average of
about 6 to 10 dB and frequent 20 to 40 dB fades. If we ignore the
deep and infrequent fades, the 6 dB typical fade translates to a 50%
reduction in range and 10 dB wouild be a 33% range compared to fixed
stations.

Unless someone has a better idea, I would suggest that authors consider a
dual method of displaying PHG circles separatly for how they would appear
to mobiles and for how they appear to basestations. I'm thinking of using
the 50% size for mobiles...

Possible display options:

1) always display both, but in different colors
2) Always display the worst case (mobile) circles but have a FIXED station
   option.
3) Force a Prompt or selection each time circles are displayed.

I will probably do #2 to keep the map clutter down... and to give the
conservative answer to the casual observer.. Or always prompt them to
chose one or the other...

Yes, all of these are crude approximations, but PHG was not intended to be
a hi-fi terrain propogation model, just a simple indication of the first
order approximation of range related to HAAT.

Just a suggestion. But whatever we do, we need to do it consistently so
that users of different software will have the same approximation for
mobiles. Is 50% the right number to use? Or less? Maybe 40%?

 de WB4APR@amsat.org, Bob

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28. [aprsspec] Introducing the new Omni Port in aprsd 215 beta1.8

From: Dale Heatherington <dale@wa4dsy.net>
Date: Wed, 26 Jun 2002 17:12:17 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-86817-2002.06.26-16.50.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This thing allows the users to define
their own data streams. Click this link for documenation.
http://www.wa4dsy.net/aprs/ports215.html#omniport

The beta test version is running on wa4dsy.net port 14600
There is a bug preventing "raw" from working.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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29. [aprsspec] Kantroincs DIgipeaters

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 27 Jun 2002 14:53:01 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-86940-2002.06.27-14.30.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just programmed a KPC-3 for WIDEn-N and realize that we should be using
the TOCALL to identify the software version using the APNxxx version
numbers.. something like APNK83 to show a "Node" using a Kantronics
version 8.3 ROM. Put APNK83 in the UNPROTO and in the LTPATH commands.

I wouild suggest:

  APNK83 for a KPC-3 version 8.3
  APNP83 for a KPC-3PLUS version 8.3
  APN983 for a KPC-9612 or KPC-9612PLUS

Just a thought.
Bob

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30. [aprsspec] APRS TOCALLs/versions (June 2002 3rd revision)

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 27 Jun 2002 16:35:45 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-86955-2002.06.27-16.13.16--lyris.aprsspec#tapr.org@lists.tapr.org>
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Here is the current list of APRS TOcalls and Version nomenclature that I
have updated. Added several new suggestions for digipeaters under APN and
added APB for the little Rabbit TCPIP/controllers.

 APA A-Filter, Alinco, etc
     APAFxx AFilter.
     APAGxx AGATE
     APAXxx AFilterX.

```
     APAHxx  AHub
 APB Rabbit TCPIP microprocessors
 APC Windows CE, etc
     APCYxx  Cybiko applications
 APD APRSd, etc
     APDTxx  APRStouch Tone (DTMF)
 APE avail
 APF avail
 APG Gates, etc
 APH HamHud, etc
 API Icom, etc
     APICQx for ICQ
 APJ JavaAPRS,JeAPRS,etc
     APJAxx JavAPRS
     APJExx JeAPRS
 APK Kenwood, etc
     APK0xx THD7's
     APK1xx D700's
 APL Liunx applications
 APM MacAPRS, etc
 APN Network nodes, digis, etc
     APN3xx Kantronics KPC-3 rom versions
     APN9xx Kantronics KPC-9612 Roms
     APNMxx MJF TNC roms
     APNPxx Paccom TNC roms
     APNDxx DIGI_NED
     APNUxx UIdigi
 APO APRSpoint
 APP pocketAPRS, etc
 APQ avail
 APR APR8xx APRSdos,etc
     APRDxx APRSdata, APRSdr
     APRKxx APRStk
     APRS   Generic, (obsolete. Digis should use APNxxx instead)
     APRXxx APRSmax
     APRTLM used my MIM's and Mic-lites, etc
 APS APRS+SA, etc
 APT TinyTrack
     APTTxx Tiny Track
     APT2xx Tiny Track II
     APTAxx K4ATM's tiny track
     APTV for ATV/APRN and SSTV applications
 APU UIview, etc
     APU1xx UIview 16 bit applications
     APU2xx UIview 32 bit apps
     APU3xx UIview terminal program
 APV avail
 APW WinAPRS, etc
 APX Xaprs, Xastir, etc
 APY etc, Yeasu, etc
 APZ Experimental
     APZ0xx Xastir (old versions. See APX)
     APZPAD Smart Palm

Authors with similar alphabetic requirements are encouraged to share
their address space with other software.  Work out agreements amongst
yourselves and keep me informed.

de WB4APR, Bob



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```

31. [aprsspec] Kantronics Digipeaters

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 27 Jun 2002 16:40:53 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS SIG <aprssig@lists.tapr.org>
Message-ID: <LYR11589-86957-2002.06.27-16.18.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 27 Jun 2002, Bob Bruninga wrote:

> We should be using the TOCALL to identify DIGI software version
> numbers... I would suggest:
>
>   APNK83 for a KPC-3 version 8.3
>   APNP83 for a KPC-3PLUS version 8.3
>   APN983 for a KPC-9612 or KPC-9612PLUS

OOps...BAD IDEA. The P should be used for PACCOMM roms. SO here is what I
have now penciled into the list of version numbers...

   APN383 for a KPC-3 or KPC-3PLUS version 8.3
   APN983 for a KPC-9612 or KPC-9612PLUS
   APNP50 for a Paccomm version 5.0 etc
   APNMxx for MFJ, etc

Bob

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---

32. [aprsspec] IS path trace and qAC in aprsd

From: Dale Heatherington <dale@wa4dsy.net>
Date: Fri, 28 Jun 2002 13:47:25 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-87129-2002.06.28-13.25.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

One of the last things I need to do before releasing an aprsd215 beta #2
is settle on how packet source tracing and loop prevention should be done.
I do not want to simply code and release it. I want some feedback.

After that is settled I need input about Inet to RF 3rd party path
construction. Lets do one at a time, with source tracing/loop prevention
first.

I have several choices for path tracing.

1) No path tracing. Leave the path as is.

2) UI-View style. Callsign,I

3) qA... construct. Two possibilities for this:
  A) "qAc,CallSign"   c=packet source , Callsign is user logon call or server alias
  B) "qAc,Call1,Call2,Call3, etc. Same as above except every server or hub adds the
     users callsign that sent the packet. The path could get quite long.

4) Suggestions I have not heard before?

For loop prevention there are three ways:
Note than none of them can stop RF=>Inet=>RF=>Inet loops 100%.

1) As it is now. The duplicate detection system stops loops **.

2) A time to live counter in the qAc path element. It Becomes
   qAcN where N is decremented down from 9 on each hop. Packet
   is discarded when N=0. You can then determine the number of
   internet hops every packet as taken.

3) If full path tracing as #3 above is implimented the path

is scanned for duplicate calls and packet is discarded if
packet has passed through the same server twice.

I'm inclined to use #3A path trace and #1 loop prevention.
eg: Add "qAc,Call" to packets without a qAc path element.
Change "Callsign,I" style packets to qAc style.
Let the dup detector stop the loops. Note that the dup detector
does not look at the path info so changing it will not create a
Mic_E style multiple packet dup mess. Also see Note2 below.

Example:
Original packet from WA4DSY igate as received at an aprsd server:
N4ZZ>APRS,WIDE:Data

Server outputs packet:
N4ZZ>APRS,WIDE,qAC,WA4DSY*:Data

Packet then preceeds through other servers unchanged.

Original packet from Hub/Server first.aprs.net as received at an aprsd server.
N4ZZ>APRS,WIDE:Data

Server outputs packet:
N4ZZ>APRS,WIDE,qAS,first2C9*:Data

Note also that packets already containing the qAc path element
are not changed.

Note:
The qAc path element is open to future expansion by adding
characters.

Note2:
One other possiblity is to also do a full trace (#3B) only on
beacon, ID or Status packets. Query a station and get
back status and full internet path trace.

Brief explaination of the qAc construct:

q is a unique character not ever present in a TNC path from RF.
A is the protocol of the data payload, in this case A=APRS.
The 3rd character indicates the local source of the packet as follows:

C validated logged on Client user that didn't add his own q
X un-validated client
R from RF (TNC)
I Internal
S Internet aprs server (old one that didn't put in it's own q)
U the UDP port on aprsd
Z Zero hops. Do not repeat this packet. (::USERLIST etc should set this)
3 3rd party packet converted to normal that has never been Igated TO RF.

Note: The last one "3" is a hack and needs a different solution.

** Currently aprsd and Win/MacAPRS handle 3rd party packets differently.
Aprsd stops them between the TNC recv and the Internet send. If it sees a 3rd party
packet on the Internet that it thinks should go to RF it adds yet another
3rd party header and puts it in RF. In other words, just like any other packet.

Win/MacAPRS/XASTIR do not stop 3rd party packets from entering the
Internet from RF.

As a result, I believe loops of mutating packets can happen.
RF=>WinAPRS=>Inet=>aprsd=>RF=>WinAPRS---->etc.

Aprsd 215b2 will not contribute to this problem.
The 3rd party handling has been totally reworked.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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33. [aprsspec] RE: IS path trace and qAC in aprsd

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 28 Jun 2002 13:44:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-87133-2002.06.28-14.22.00--lyris.aprsspec#tapr.org@lists.tapr.org>
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While I think further loop prevention should be done, I think this
should be the result of a working group architecture as opposed to an
ad-hoc approach. The current APRS-IS architecture is a 2 to 3 tier
architecture with all traffic traveling through the core servers.

With the changes you have made to aprsD (eliminating third-party packets
appearing on the Internet side) and javAPRSSrvr also eliminating
third-party packets, the opportunity for looping has been greatly
reduced. Even with older client software possibly injecting third-party
packets, they will be stripped from the APRS-IS stream by the server
that they are connected to.

Your method of passing the "meat" of non-TCPIP third-party packets to
the Internet is excellent and should be implemented by all IGate
software (passing the packet without the RF header).

The qAc method of identification is good and should be considered by the
APRS-IS working group (if one gets created). My recommendation, based
on other comments made on this SIG, is to append callsign,I* to a packet
getting gated from RF. Then, if an IGate on the other end wants to gate
it back out, it replaces the I* with callsign,TCPIP* in the third-party
header. Of course, currently, all IGates truncate the entire path on
gating to RF and replace the path with callsign,TCPIP*.

I have had family issues that required my full attention this month so I
have been unable to move forward on the "current" APRS-IS specification.
However, I will begin compiling this during the month of July.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Dale Heatherington [mailto:dale@wa4dsy.net]
> Posted At: Friday, June 28, 2002 12:48 PM
> Subject: [aprsspec] IS path trace and qAC in aprsd
>
> I do not want to simply code and release it. I want some feedback.
>
> I have several choices for path tracing.
>
> 1) No path tracing. Leave the path as is.
>
> 2) UI-View style. Callsign,I
>
> 3) qA... construct. Two possibilities for this:
>   A) "qAc,CallSign"   c=packet source , Callsign is user
> logon call or server alias
>   B) "qAc,Call1,Call2,Call3, etc. Same as above except every
> server or hub adds the
>   users callsign that sent the packet. The path could get
> quite long.
>

> 4) Suggestions I have not heard before?
>
> -------
> For loop prevention there are three ways:
> Note than none of them can stop RF=>Inet=>RF=>Inet loops 100%.
>
> 1) As it is now. The duplicate detection system stops loops **.
>
> 2) A time to live counter in the qAc path element. It Becomes
>   qAcN where N is decremented down from 9 on each hop. Packet
>   is discarded when N=0. You can then determine the number of
>   internet hops every packet as taken.
>
> 3) If full path tracing as #3 above is implimented the path
>   is scanned for duplicate calls and packet is discarded if
>   packet has passed through the same server twice.
>

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34. [aprsspec] Re: IS path trace and qAC in aprsd

From: "Curt Mills, WE7U" <archer@eskimo.com>
Date: Sun, 30 Jun 2002 10:48:31 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Mills, Curt, WE7U" <archer@eskimo.com>,
        "Curt, WE7U Mills" <hacker@tc.fluke.com>
Message-ID: <LYR11589-87426-2002.06.30-14.16.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 28 Jun 2002 13:47:25, Dale Heatherington said:

> Win/MacAPRS/XASTIR do not stop 3rd party packets from entering the
> Internet from RF.

Ah, but Xastir does prevent this!

If you see 3rd party packets getting Igated RF->Inet from Xastir
1.1.2 or later I'd like to know about it. I don't know exactly when
the code was written or patched to prevent this, but it's been in
there for a while.

Perhaps you've seen stations running old versions of Xastir doing
this? There are still people running 0.3.6 from various Linux
distribution CD's. Perhaps 1.0.0 might allow these packets through
as well.

If you see Xastir stations doing this, encourage them to upgrade.

Curt, WE7U.   archer@eskimo.com
http://www.eskimo.com/~archer
  Lotto: A tax on people who are bad at math. - unknown
Windows: Microsoft's tax on computer illiterates. - WE7U.

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July 2002

Original source file: aprsspec.0207
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0207

1. URGENT RESPONSE

From: "Prince Jokun P. Otondo" <mariamaaa20002000@yahoo.co.uk>
Date: Mon, 1 Jul 2002 10:54:46 +0100
To: <lyris.aprsspec@tapr.org>
Message-ID: <20020701160609.CAD7BA80A@mx2.mail.twtelecom.net>
Rendered body type: text/plain

Prince Jokun P. Otonto
NNPC Nigeria

ATTENTION: The President/Managing Director

I am the Director of maintenance for the Nigeria
National Petroleum Corporation (NNPC). I have been
mandated by my colleagues to look for a foreign
organization that would be able to provide an account
into which can be transferred the sum of (twenty
million five hundred thousand us dollars)
$20,500,000.00.
The funds are the excess of an over-inflated contract
that was done for the NNPC and are still floating in
NNPC□s account with the Central Bank of Nigeria. These
funds need to be transferred to a beneficiaries
account hence this proposal.
We have agreed that for providing an account you will
receive 25% of the funds. For us to proceed we need
the following details to process the transfer of the
funds:

NAME & ADDRESS OF YOUR BANK
ACCOUNT NAME
ACCOUNT NUMBER

With the above information it will take 7 working days
to transfer the funds to your account.
As we are senior officials in our organization we have
arranged this deal to be hitch-free.
We also wish that you would in turn keep this business
confidential.
Please reply by providing us your private e-mail
address, fax and phone numbers for easy and
confidential communication.
Please reply at jpotondo@rediffmail.com
Looking forward to doing business with you.

Yours sincerely

Prince Jokun P. Otondo

2. [aprsspec] Network Personality Bit Encoding

From: "E. Tupis" <w2ev@rochester.rr.com>
Date: Tue, 02 Jul 2002 07:28:51 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-87705-2002.07.02-07.07.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The question: How do I know which stations are capable of digipeating on
what aliases?

The answer: it is impossible to know without a careful analysis of the
data that they see and watching what they do with it...and knowing the
'personality' of each digipeating alias.

Bob has suggested the use of an overlay character on each digipeater, in
the hopes of identifying it's "Network Personality". I would like to
expand on that concept a bit, before it becomes too entrenched to modify
(should the APRS community agree that what I'm proposing has merit).

First, identify all of the possible personalities that could be
exhibited. In the APRS world, I think they are as follows:

RELAY Digipeater

WIDE Digipeater
TRACE Digipeater
WIDEn-N Digipeater
TRACEn-N Digipeater
GATE (connects two RF-based APRS frequencies ie 2m<->30m)
IGATE (connects APRS to the Internet Stream)

Assumption: Non home-based Digi's are rarely (if ever) also GATE's and
IGates. If this is true, then remote digis would continue to use the
green star icon, while GATE and IGATE stations would use another icon
entirely.

Provided that I haven't missed one or two, this is a perfect example of
where 5-bit encoding can work wonders in an overlay.

twTWR R=Relay,W=Wide,T=Trace,w=Widen-N,t=Tracen-N,
12345 G=Gate,I=IGate and 12345 is the Bit-position of
         a single byte...the overlay character. (!)

Using such a system, one can easily identify all digipeating aliases
that any given digipeater can respond to!

R,W,T (no n-N) = 00111 binary -or- "7" in BASE36

If you see a green star with a "7" overlayed, you know it is capable of
RWT only.

A Kantronics could be setup as 11111 binary -or- 31 decimal -or- "U" in
BASE36. Such a digi would show an overlay of "U".

In California, maybe it's 11110 binary (no RELAY) -or- 30 decimal -or-
"T" in BASE36. Get it?

Any combination of these 5 digipeating aliases could be displayed for
everyone on the network to see.

This is simply food for further discussion.

Kind regards,
Ev, W2EV

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3. [aprsspec] Re: Network Personality Bit Encoding

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 2 Jul 2002 10:39:43 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-87734-2002.07.02-10.18.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Tue, 2 Jul 2002, E. Tupis wrote:

> The question: How do I know which stations are capable of digipeating on
> what aliases?

The present overlay is for rapid human consumption and really is only a
few types with probably these distributions:

   N - 80%   (some of these are the "I" type)
   T - 10%
   W - 3%
   R - 2%   And others being another 5% (guessing only)

Users should all konw what these mean. So I do not want to mess with that
present system. But I do like your concept for adding in the position
comment field. In the early days (before the overlay character) we asked
for the words "WIDE" or "RELAY-WIDE" or "TRACE" in the comment field.
But with all the options now, that becomes unwieldy. Your suggestion
for a summary few bytes has merit.

Bob

On Tue, 2 Jul 2002, E. Tupis wrote:

> The question: How do I know which stations are capable of digipeating on
> what aliases?
>
> The answer: it is impossible to know without a careful analysis of the
> data that they see and watching what they do with it...and knowing the
> 'personality' of each digipeating alias.
>
> Bob has suggested the use of an overlay character on each digipeater, in
> the hopes of identifying it's "Network Personality". I would like to
> expand on that concept a bit, before it becomes too entrenched to modify
> (should the APRS community agree that what I'm proposing has merit).
>
> First, identify all of the possible personalities that could be
> exhibited. In the APRS world, I think they are as follows:
>
> RELAY Digipeater
> WIDE Digipeater
> TRACE Digipeater
> WIDEn-N Digipeater
> TRACEn-N Digipeater
> GATE (connects two RF-based APRS frequencies ie 2m<->30m)
> IGATE (connects APRS to the Internet Stream)
>
> Assumption: Non home-based Digi's are rarely (if ever) also GATE's and
> IGates. If this is true, then remote digis would continue to use the
> green star icon, while GATE and IGATE stations would use another icon.
> Provided that I haven't missed one or two, this is a perfect example of
> where 5-bit encoding can work wonders in an overlay.
>
> twTWR R=Relay,W=Wide,T=Trace,w=Widen-N,t=Tracen-N,
> 12345 G=Gate,I=IGate and 12345 is the Bit-position of
> a single byte...the overlay character. (!)
>
> Using such a system, one can easily identify all digipeating aliases
> that any given digipeater can respond to!
> <snip>
> Any combination of these 5 digipeating aliases could be displayed for
> everyone on the network to see... Simply food for further discussion.

> Kind regards,
> Ev, W2EV

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4. [aprsspec] Re: PHG circles

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 5 Jul 2002 10:25:33 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Keith Sproul <ksproul@vger.rutgers.edu>,
Mark Sproul <msproul@jove.rutgers.edu>,
Mike Musick <mikemusick@earthlink.net>,
Brent Hildebrand <bhildebrand@earthlink.net>,
Roger Barker <roger@peaksys.co.uk>, "Curt Mills, WE7U" <we7u@mail.com>
Message-ID: <LYR11589-88155-2002.07.05-10.03.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

AUTHORS:

In my latest release of APRSdos, I have cut the PHG displayed circle
radius in HALF to better display the usable range to DIGI's to/from
mobiles. THis is not an arbitrary choice, but founded on the well
established multi-path models for mobiles.

So now by default, users see a more realistic display (the MOBILE
display). User may still optionally select the "FIXED" display with one
more keystroke, but since this is so unrealistic to the normal and
intended uses of APRS as a tactical system, it does not come up first.

I would like to ask all AUTHORS to consider doing the same...

On Mon, 24 Jun 2002, Bob Bruninga wrote:

> Authors... Regarding PHG circles:
>
> I think it is time to re-do how we display PHG circles on APRS maps.
> The present formula is only an approximation and assumes a fixed station
> without mobile multipath.
>
> But Mobiles have multipath and the literature suggests an RMS average of
> about 6 to 10 dB and frequent 20 to 40 dB fades. If we ignore the
> deep and infrequent fades, the 6 dB typical fade translates to a 50%
> reduction in range and 10 dB wouild be a 33% range compared to fixed
> stations.
>
> Unless someone has a better idea, I would suggest that authors consider a
> dual method of displaying PHG circles separatly for how they would appear
> to mobiles and for how they appear to basestations. I'm thinking of using
> the 50% size for mobiles...
>
> Possible display options:
>
> 1) always display both, but in different colors
> 2) Always display the worst case (mobile) circles but have a FIXED station
>   option.
> 3) Force a Prompt or selection each time circles are displayed.
>
> I will probably do #2 to keep the map clutter down... and to give the
> conservative answer to the casual observer.. Or always prompt them to
> chose one or the other...
>
> Yes, all of these are crude approximations, but PHG was not intended to be
> a hi-fi terrain propogation model, just a simple indication of the first
> order approximation of range related to HAAT.
>
> Just a suggestion. But whatever we do, we need to do it consistently so
> that users of different software will have the same approximation for
> mobiles. Is 50% the right number to use? Or less? Maybe 40%?
>
> de WB4APR@amsat.org, Bob
>
>
> ---
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> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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5. [aprsspec] Re: Network Personality Bit Encoding

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 05 Jul 2002 09:46:46 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88160-2002.07.05-10.26.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>Any combination of these 5 digipeating aliases could be displayed for
>everyone on the network to see.
>
>This is simply food for further discussion.

Makes sense for me, but..

Shouldn't we be working toward a single setting that works everywhere?

I like it in that it identifies what the digi can do, but my KPC-3 tracker

can't adjust itself to conform to the nearby digi. (without yet another
kludge-box)

If all high level digis at least responded to relay and wide, and would
take WideN-N if only as "wide", then you could set a path of Relay,Wide3-3
and always at least make two hops, anywhere.

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6. [aprsspec] Feedback on the APRS101.PDF documentation

From: Ed Blair <EBLAIR@davisnet.com>
Date: Fri, 5 Jul 2002 15:15:29 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88215-2002.07.05-17.53.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I just finished adding an internet APRS weather report feature to Davis
Instruments' WeatherLink program.
This feature generates APRS packets from a weather station (and user entered
Lat/Lon info) and sends them
via the internet to an APRS server. This feature was added at the request of
and to support NOAA's Citizen
Weather Observer's Program.

I had a couple of comments about the APRS101.PDF documentation file you may
want to consider for the next
time you release a new version.

1. In section 12, page 64. You describe the Positionless Weather Data format
and state that wind speed values are
in MPH. On page 65, for "Complete Weather Reports with Timestamp and
Position" you state that "... the 7-byte Wind
Direction and Wind Speed Data Extension replace the "cccc" and "ssss" fields
...". Back on page 27 the definition of the
"Wind Direction and Wind Speed" data extension says that wind speed should
be expressed in knots. This will result in
inconsistent units (i.e. the current wind given in knots with the wind gust
given in mph). Both findu.com and NOAA want the
wind value in this case to be in MPH.

2. Again on page 64, It is really hard to tell which rain field is supposed
to use the lowercase "p" and which is supposed to
use the uppercase "P". It is possible to choose a different font so that it
is more clear?

3. This software works on Davis' new line of weather stations, the Vantage
Pro. I am using "DsVP" as the Weather Unit Type
and am submitting it as a candidate for the official list.

4. What should I do about the APRS Software Type field? I know that there is
at least one other software package in the same niche
as mine (i.e. generating APRS weather packets for internet distribution, but
only as a small part of a general weather display
and data management program). I am using a "." (period) for now.

Thank you for your consideration
Edward Blair.

Edward Blair Davis Instruments
Software Engineer 3465 Diablo Ave
eblair@davisnet.com Hayward, CA 94545
(510) 732-9229

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] RE: Feedback on the APRS101.PDF documentation

From: Ed Blair <EBLAIR@davisnet.com>
Date: Fri, 5 Jul 2002 17:29:13 -0700

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88228-2002.07.05-20.07.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Findu:
Compare http://www.findu.com/cgi-bin/wxpage.cgi?CW0538

Where it says: Wind from 268 degrees @ 8 MPH

and http://www.findu.com/cgi-bin/find.cgi?CW0538

where the raw packet is
CW0538>APRS,TCPXX*:@052343z3738.17N/12207.50W_268/008g...t062L637P000h68b101
25.DsVP

Clearly findu did not convert the wind speed of "/008" from
knots to MPH but took the value as is in MPH. (8 knots =
9.2 MPH which would round to 9 MPH)

NOAA:
My contact is Russ Chadwick at the Forecast Systems Laboratory
in Boulder Colorado. When I asked him this same question he said:

"All wind speeds should be in miles per hour. While the APRS IS
specification says knots, note that relates only to velocities
of objects. Elsewhere in the spec, it says that wind speeds
should be in mph and that is what we expect."

I don't know exactly where he is referring to, but the positionless
weather record specifically says MPH. And near the beginning
there is a general warning that different wind units are used
in different contexts.

My point is that it would not make sense for a weather report to
have the current wind speed in knots and the wind gust in MPH.
On the other hand it is not good to use knots for the wind speed
in the data extension EXCEPT when the packet is a weather packet.

I am not clear about why the complete weather packet can't just
report the timestamp and location without a data extension, and
then use the positionless weather format (i.e. "c268s008") to
report the wind direction and speed in MPH.

Edward Blair

Edward Blair   Davis Instruments
Software Engineer   3465 Diablo Ave
eblair@davisnet.com   Hayward, CA 94545
(510) 732-9229

-----Original Message-----
From: Ray McKnight - WB3ABN [mailto:shortsheep@worldnet.att.net]
Sent: Friday, July 05, 2002 4:47 PM
To: 'Ed Blair'
Cc: aprssig@tapr.org
Subject: RE: [aprsspec] Feedback on the APRS101.PDF documentation

Who says "Both findu.com and NOAA want the
wind value in this case to be in MPH"? Does the Citizen's Weather
Program directly conflict with FMH-1, which in Chapter 5.5.1 clearly
states that all wind observations will be reported in KNOTS.

Ray - WB3ABN
Kingston, WA

-----Original Message-----
From: bounce-aprsspec-29216@lists.tapr.org
[mailto:bounce-aprsspec-29216@lists.tapr.org] On Behalf Of Ed Blair
Sent: Friday, July 05, 2002 15:15
To: APRS Spec Discussion List
Subject: [aprsspec] Feedback on the APRS101.PDF documentation

...

1. In section 12, page 64. You describe the Positionless Weather Data
format and state that wind speed values are in MPH. On page 65, for
"Complete Weather Reports with Timestamp and Position" you state that
"... the 7-byte Wind Direction and Wind Speed Data Extension replace
the "cccc" and "ssss" fields ...". Back on page 27 the definition of the

"Wind Direction and Wind Speed" data extension says that wind speed
should be expressed in knots. This will result in inconsistent units
(i.e. the current wind given in knots with the wind gust given in mph).
Both findu.com and NOAA want the wind value in this case to be in MPH.

...

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] Encoding a "network personality"

From: "E. Tupis" <w2ev@rochester.rr.com>
Date: Fri, 05 Jul 2002 21:01:21 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88233-2002.07.05-20.41.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Sorry for the change in subject title...it's a looooong story. :o)

> Any combination of these 5 digipeating aliases could
> be displayed for everyone on the network to see.
>
>This is simply food for further discussion.

Makes sense for me, but..

Shouldn't we be working toward a single setting that works everywhere?

I like it in that it identifies what the digi can do, but my KPC-3
tracker can't adjust itself to conform to the nearby digi. (without yet
another kludge-box)

These are two different issues. One is being able to see, at a glance,
what the network is like within your range. The second is assuring
operational ubiquity.

By landing on a common icon-overlay scheme, one can tell...at a glance
many useful things:

o your best path to get to a WIDEn-N digi (IF there are
  any in the area)
o your best path to get to an HF gate (IF thera are any)
o your best path to get to an IGate (ditto above)

With a very small amount of sleuthing, you can find out who is using
that archaic non call-substituting ROM.

There hasn't been alot of comment on this proposal, other than from Bob,
but I honestly hope that it doesn't die. It is one of the biggest needs
of the general APRS service (besides someone writing UnIversal Engine,
that is <smile>). It is built-in to the BEACONet protocol (and
implemented using the bit-encoding method previously described), but
it's alot like SSID routing (in the protocol, but not implemented yet).
:o)

The method of getting there is unimportant...the need to get there is
universal. Bob's proposal, though 'less specific' than the bit-level
encoding scheme that I proposed, is certainly easier for 'human
decoding' (which is a good thing).

Your issue of re-establishing "path ubiquity" is quite important, as
well...but a different issue. Other than having some digi's out there
that "can't" process WIDEn-N, I'm not certain I yet understand why this
can't be accomplished (a continent-wide RELAY,WIDE3-3 ability). Even
then...I have some thoughts as to what to do with those old TNC's,
too...but before I share that, I'd like to know how many we're talking
about. :o)

Ev, W2EV

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

9. [aprsspec] Re: Encoding a "network personality"

From: David VanHorn <dvanhorn@cedar.net>
Date: Fri, 05 Jul 2002 20:08:05 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88234-2002.07.05-20.46.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>These are two different issues. One is being able to see, at a glance,
>what the network is like within your range. The second is assuring
>operational ubiquity.

I agree. I guess I'm just worried that the ability to work around the old
digis will turn into a crutch for keeping them.   I certainly agree with
your method.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] RE: Feedback on the APRS101.PDF documentation

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Fri, 5 Jul 2002 20:54:32 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88240-2002.07.05-21.32.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The APRS spec actually is pretty specific, but you need to look in two
places. Russ is actually incorrect in his interpretation per
discussions on this subject on a couple of years ago. The positionless
weather packet has all speeds in MPH (as discussed already).

The "complete" weather packet makes use of an APRS data extension
(chapter 7). As stated in chapter 7, the SPD portion of both the
"Course and Speed" and "Wind Direction and Wind Speed" are in knots.
This was done (I am assuming here) so an APRS decoder only needs to know
one method for decoding the data extension since there is no
differentiator between the two extensions (other than the icon symbol
found elsewhere in the packet).

Findu should be converting the speed, as well.

Hope this clarifies things a little.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Ed Blair [mailto:EBLAIR@davisnet.com]
> Posted At: Friday, July 05, 2002 7:30 PM
> Subject: [aprsspec] RE: Feedback on the APRS101.PDF documentation
>
> Clearly findu did not convert the wind speed of "/008" from
> knots to MPH but took the value as is in MPH. (8 knots =
> 9.2 MPH which would round to 9 MPH)
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> "All wind speeds should be in miles per hour. While the APRS IS
> specification says knots, note that relates only to velocities
> of objects. Elsewhere in the spec, it says that wind speeds
> should be in mph and that is what we expect."

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11. [aprsspec] Re: Feedback on the APRS101.PDF documentation

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jul 2002 16:36:54 -0400 (EDT)

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88314-2002.07.06-16.14.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 5 Jul 2002, Ed Blair wrote:

> I had a couple of comments about the APRS101.PDF documentation file you may
> want to consider for the next time you release a new version.

Good data, thanks.

> I am using "DsVP" as the Weather Unit Type and am submitting it as a
> candidate for the official list.

Sounds fine to me. Go for it...

> 4. What should I do about the APRS Software Type field? I know that there is
> at least one other software package in the same niche
> as mine (i.e. generating APRS weather packets for internet distribution, but
> only as a small part of a general weather display
> and data management program). I am using a "." (period) for now.

Is it different than the existing WX fields? Show us the format.
Thanks
Bob
>
> Thank you for your consideration
> Edward Blair.
>
> --
> Edward Blair   Davis Instruments
> Software Engineer   3465 Diablo Ave
> eblair@davisnet.com   Hayward, CA 94545
> (510) 732-9229
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] RE: Feedback on the APRS101.PDF documentation

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 6 Jul 2002 16:49:27 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88322-2002.07.06-16.27.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 5 Jul 2002, AE5PL Lists wrote:

> The "complete" weather packet makes use of an APRS data extension
> (chapter 7). As stated in chapter 7, the SPD portion of both the
> "Course and Speed" and "Wind Direction and Wind Speed" are in knots.
> This was done (I am assuming here) so an APRS decoder only needs to know
> one method for decoding the data extension since there is no
> differentiator between the two extensions (other than the icon symbol
> found elsewhere in the packet).

Actually, I would say the SPEC is in error here. THe complete WX packet
just conveniently uses the same BYTES for WIND DIR and SPEED as it would
normally use for COURSE and SPEED in an object or position report. But
the definition of what that byte means is "Knots" if it is an object or

positoin, and MPH if it is a wx report.

At least Thats the way it is supposed to be.

de WB4APR, Bob

> > Findu should be
converting the speed, as well. > > Hope this clarifies things a little.
>
> 73,
>
> Pete Loveall AE5PL
> http://www.ae5pl.net
> mailto:pete@ae5pl.net
>
> > -----Original Message-----
> > From: Ed Blair [mailto:EBLAIR@davisnet.com]
> > Posted At: Friday, July 05, 2002 7:30 PM
> > Subject: [aprsspec] RE: Feedback on the APRS101.PDF documentation
> >
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>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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13. [aprsspec] RE: Feedback on the APRS101.PDF documentation

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 6 Jul 2002 17:02:13 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88335-2002.07.06-17.40.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Saturday, July 06, 2002 3:50 PM
> Subject: [aprsspec] RE: Feedback on the APRS101.PDF documentation
>
> Actually, I would say the SPEC is in error here. THe
> complete WX packet
> just conveniently uses the same BYTES for WIND DIR and SPEED
> as it would
> normally use for COURSE and SPEED in an object or position
> report. But
> the definition of what that byte means is "Knots" if it is an
> object or
> positoin, and MPH if it is a wx report.
>
> At least Thats the way it is supposed to be.

Another reason for the working group to assemble an updated
specification (possibly create an online addendum that the WG can keep
up-to-date and where developers such as myself can go so we won't have
to guess if the spec is correct or not). When I asked these same
questions 2 years ago, I was told to use knots for a complete weather

report and mph for the positionless report.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

14. [aprsspec] RE: Feedback on the APRS101.PDF documentation

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 7 Jul 2002 08:58:21 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88418-2002.07.07-09.36.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Also, while you are creating a specification addendum, note that the
section on compressed packets also says that speed is in knots. I would
guess, from your statement about the spec being in error about the data
extension for weather reports that this is also in error regarding
complete weather reports using compressed lat/lon format.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> > -----Original Message-----
> > From: Bob Bruninga [mailto:bruninga@usna.edu]
> > Posted At: Saturday, July 06, 2002 3:50 PM
> > Subject: [aprsspec] RE: Feedback on the APRS101.PDF documentation
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> > the definition of what that byte means is "Knots" if it is an
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> > positoin, and MPH if it is a wx report.
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> > At least Thats the way it is supposed to be.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

15. [aprsspec] RE: Feedback on the APRS101.PDF documentation

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 7 Jul 2002 17:23:06 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88456-2002.07.07-17.01.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 7 Jul 2002, AE5PL Lists wrote:

> Also, while you are creating a specification addendum, note that the
> section on compressed packets also says that speed is in knots. I would
> guess, from your statement about the spec being in error about the data
> extension for weather reports that this is also in error regarding
> complete weather reports using compressed lat/lon format.

Yes, back when we did the WX stuff, we were told that WX should always be
in MPH...

bob
>
> 73,
>
> Pete Loveall AE5PL

> http://www.ae5pl.net
> mailto:pete@ae5pl.net
>
> > > -----Original Message-----
> > > From: Bob Bruninga [mailto:bruninga@usna.edu]
> > > Posted At: Saturday, July 06, 2002 3:50 PM
> > > Subject: [aprsspec] RE: Feedback on the APRS101.PDF documentation
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de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

16. [aprsspec] New beta of aprsd 215 available

From: Dale Heatherington <dale@wa4dsy.net>
Date: Wed, 10 Jul 2002 14:40:10 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88825-2002.07.10-14.18.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

A new public beta of aprsd 2.1.5 is up on wa4dsy.net.

Download it at:
http://www.wa4dsy.net/Files/aprsd215b2.tgz

Documentation is here:
http://www.wa4dsy.net/aprs/aprsdDOC.html

REVISIONS

2.1.5

Note: Some of these bugs were caught by the new compiler in RedHat 7.

1) Fixed charQueue.write statement in serialp.cpp. Now it passes the char as an integer in the cmd field.
   It used to pass the char as a char pointer. This worked but was confusing.

2) Fixed charQueue.read() statement in aprsd.cpp. Now it reads the int cmd and then converts it to
   a char. (see #1 above)

3) aprspass.cpp: Added to the #includes list "stdlib.h" so it now compiles on RedHat 7

4) added a missing pthread_mutex_unlock() in SendFiletoClient(). Possible cause of lockups!

5) Fixed several instances where I had incorrectly used strncat. strcat is now used instead.
   Checked for buffer overflows.

6) Changed the way the number of connected clients is determined. Now the sessions[] array
   is searched and active connections are counted each time this value is required. The
   previous code had a counter "ConnectedClients" which sometimes got out of sync with reality.

7) Fixed many instances where ostrstream objects could create buffers without terminating NULLs
    if filled beyond capacity.   (no overflow, just an unterminated string)

8) Fixed bug in Mic-E converter that rejected latitude decimal minutes greater than .59 .

9) Added filter code in serialp.cpp to prevent ?IGATE? and ?APRSD? querys from being
    igated from RF to the internet where dozens of replies could be generated. APRSD still
    responds to the RF station but doesn't pass the query to any other igates.

10) Applied patches from Steve Price (KG4PGU) to make code more portable.
    Didn't change to gethostbyname2_r() though.

11) Release a9: Worked on code that used gethostbyname2_r(). Removed mutex locks.
    Added a test for return value == 0 in addition to hostinfo pointer not
    being NULL.   Will this fix the crashing problem?
    Answer, after a 500 hour test: NO!

12) Release a10: Replaced gethostbyname2_r with gethostbyname_r.

13) Added filter code in aprsString to reject "EH?" and "cmd:" packets.

14) Added "try" "catch" blocks to aprsString::AEAtoTAPR, split() and aprsString::changePath().
    Now exceptions there will be caught instead of segfaulting.
    Note there was no solid evidence these functions ever caused a segfault. Safety first.

15) 5-19-02 Removed directed query responses. Fixed general query "?IGATE?" response to comply with
    APRS spec 1.0.

16) Stopped sending System Status messages on Link port (1313), Message Port (1314)
    and to Hubs you have connected to. You will no longer get:
    "aprsdATL>JAVA::javaMSG :Atlanta_GA Linux APRS Server: 127.0.0.1 connected 2 users online."
    and other such messages on these ports. The BEACON packet will still go to all ports
    except the 1314 message-only port.

17) Added support for NOGATE in path. If a packet from any source has NOGATE or RFONLY in the
    path it will killed and not go onto the Internet. However, they will still appear
    on the raw TNC port (14580) for network debuging.

18) The server now adds information to the end of the PATH indicating the
    source of each packet . This is the qAc,CallSign construct.
    See server docs for more details.

19) In the code that creates connections to other hubs (Server command) I added
    code to check that the sysop of THIS hub provided a valid passcode. If not valid
    no data will be sent outbound.

20) Added error checking in thirdPartyReformat(). It now returns an
    error if packet wasn't valid AX25 or was already in 3rd party format.

21) Fixed problems with 3rd party packet handling.
    Now it works this way:

    A) Third party packets that have TCPIP in the
       3rd party header are rejected.

    B) Third party packets that don't have TCPIP are converted
       to normal format and put on the internet stream.

22) Restructured the aprsd.cpp file into three files. All the aprs server thread
    code is now in servers.cpp. The http server is in httpserver.cpp.
    Also cleaned up alot of sloppy usage of extern declarations.
    All externs are now in include files.

22) Added signal handler for SIGINT to allow graceful shutdown when running
    as a daemon. Issuing a "killall -INT aprsd" command properly loads
    RESTORE.TNC into the tnc and stops aprsd. Also, "service aprsd.init stop"
    will properly shutdown aprsd.

23) Added new keyword "Server" to aprsd.conf file.
    It replaces the old "Igate" command (although Igate is still honored).
    A command such as "server first.aprs.net 23 hub-sr" defines the connection
    to first.aprs.net as a send/receive hub connection. The user passcode
    is supplied with another keyword "pass". See aprsd.conf docs for details.

24) Added a new class of port. OmniPort defaults to 14600 and allows the USER
    to control which data streams he wants via messages or plain ascii commands.

25) Added a new page of data to the html status page. Clicking on the users
    port number opens port filter status in a new window. There you can
    observe which streams each user is being sent. This became important
    because of the new OmniPort and its user definable streams.

26) Added bandwidth controls. Sysop may now specify the maximum allowed server
    load in bytes/sec. New users are rejected when the limit would be exceeded
    and the latest high bandwith users are disconnected if the load increases
    beyond the specfied limit. Keyword is "MaxLoad" in aprsd.conf .

27) TNC sysop mode can only be accessed from the new TNC Sysop Port 14500.
    Aprsd will now automatically put your telnet client into character-at-a-time
    mode for better operation with the TNC command line.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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17. [aprsspec] Re: [aprssig] [lyrRe: New beta of aprsd 215 available

From: Dale Heatherington <dale@wa4dsy.net>
Date: Wed, 10 Jul 2002 20:11:34 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88847-2002.07.10-19.49.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

After receiving some feedback about aprsd215b2 and
discovering and correcting some minor C++ syntax problems
caught by other compilers I have released another beta.
If beta 2 did not compile for you try this one.

http://www.wa4dsy.net/Files/aprsd215b3.tgz

--
Dale Heatherington
Web Page http://www.wa4dsy.net
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18. [aprsspec] Varicoded Message, Bulletin, Announce Proposal

From: "" <cbertaut@megapipe.net>
Date: Thu, 11 Jul 2002 21:03:15 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-88973-2002.07.11-20.44.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Has consideration been given to creating a Varicoded message format in APRS?
Given that APRS is designed as a "tactical geographical system," the current
Message data type seems to risk channel overloading by limiting Messages and
Bulletins and Announcements to 67 characters per APRS packet. Users must choose
between possibly excessive abbreviation of free-form information, or sending
multiple packets to convey information that the highly compressed position, WX,
etc. data formats do not cover.

As a possible means of implementation of Varicoded text transmission, could one
of the presently unused Data Type Identifiers like: "^" or "\" be used to

indicate text Varicoded along the lines of Peter Martinez's (G3PLX) PSK31
alphabet? Any version of APRS that didn't recognize the Data Type Identifier
would just fail to display the transmitted text, but Varicode-enabled APRS
software packages would allow their users to send up to twice as much free-form
text in a single packet.

I await your replies swathed in Nomex.

73 de KU4FT

C

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19. [aprsspec] aprsd215 beta 4 available

From: Dale Heatherington <dale@wa4dsy.net>
Date: Fri, 12 Jul 2002 11:25:59 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89040-2002.07.12-11.04.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

aprsd 2.1.5 beta 4 can be downloaded here:
http://www.wa4dsy.net/Files/aprsd215b4.tgz

This version compiles with the new GNU C 3.1 compiler.
It also still compiles with 2.95.

I also made doing Mic-E conversions more difficult.
The sysop must not only set "ConvertMicE yes" in the
aprsd.conf file but also change "#define CONVERT_MIC_E FALSE"
to "TRUE" in constant.c and recompile.
I added a new status field on the port 14501 html status
page "Mic-E Conversions YES/NO".

So far there have not been any reports of problems with
beta 3. If beta 4 does not generate any significant
negative reports I'll release aprsd 215.

--
Dale Heatherington
Web Page http://www.wa4dsy.net
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20. [aprsspec] Varicoded Message, Bulletin, Announce Proposal

From: "" <cbertaut@megapipe.net>
Date: Fri, 12 Jul 2002 20:57:07 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89102-2002.07.12-20.37.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Let me flesh out my idea a bit further. I am proposing a new
Message/Bulletin/Announcement Data Type Identifier - let's say "\" to indicate
Varicoded Messages, etc. The max. size is still 67 bytes, so more characters
would generally be available for messages given the usual distribution of
characters in message text. I suggest the use of G3PLZ's varicode alphabet, which
would be interpreted by enabled APRS clients just like ASCII, since lookup tables
are used for either ASCII or a Varicode to translate binary strings into text.
The legacy message type, indicated by a DTI of ":" would remain in use to permit
messaging to older client types. As a matter of convention, NOT specification,
Bulletins and Announcements should not be Varicoded until Varicode-enabled APRS
clients are the norm. G3PLZ's Varicode alphabet seems like a good fit because it
was developed from character frequencies in English, not QSOs. Much of what is
passed in a QSO is already encoded elsewhere in an APRS packet - e.g., callsigns,
QTH, WX, etc. Varicoding messages could enhace the tactical utility of APRS by
permitting longer free-form messages within single packets, which would help

prevent channel congestio

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21. [aprsspec] RE: Varicoded Message, Bulletin, Announce Proposal

From: Bill Diaz <william.diaz@attbi.com>
Date: Fri, 12 Jul 2002 20:39:59 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89106-2002.07.12-21.18.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Questions:

On Friday, July 12, 2002 19:57, cbertaut@megapipe.net
[SMTP:cbertaut@megapipe.net] wrote:
> Let me flesh out my idea a bit further. I am proposing a new
> Message/Bulletin/Announcement Data Type Identifier - let's say "\" to
indicate
> Varicoded Messages, etc. The max. size is still 67 bytes, so more
characters
> would generally be available for messages given the usual distribution of

> characters in message text. I suggest the use of G3PLZ's varicode
alphabet, which
> would be interpreted by enabled APRS clients just like ASCII, since
lookup tables
> are used for either ASCII or a Varicode to translate binary strings into
text.
> The legacy message type, indicated by a DTI of ":" would remain in use to
permit
> messaging to older client types. As a matter of convention, NOT
specification,
> Bulletins and Announcements should not be Varicoded until
Varicode-enabled APRS
> clients are the norm. G3PLZ's Varicode alphabet seems like a good fit
because it
> was developed from character frequencies in English, not QSOs. Much of
what is
> passed in a QSO is already encoded elsewhere in an APRS packet - e.g.,
callsigns,
> QTH, WX, etc. Varicoding messages could enhace the tactical utility of
APRS by
> permitting longer free-form messages within single packets, which would
help
> prevent channel congestio
>

The varicoded payloads will not be decodable by Kenwood D7, D700's and (I
think) HamHud etc.

It is also possible that some existing client applications may encounter
difficulty when receiving these packets. For example, when any of the
varicoded text happens to include character sequences that resemble
standard APRS constructs.

Bill KC9XG

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22. [aprsspec] RE: Varicoded Message, Bulletin, Announce Proposal

From: "" <cbertaut@megapipe.net>
Date: Sat, 13 Jul 2002 09:44:40 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89182-2002.07.13-09.25.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Some Replies:

de KC9XG:
>The varicoded payloads will not be decodable by Kenwood D7, D700's and (I
>think) HamHud etc.

>It is also possible that some existing client applications may encounter
>difficulty when receiving these packets.

True. The D7, etc. seem to be hard-coded to decode only ASCII messages, etc.
That's why I recommend using a new Data Type Identifier for Varicoded text and
keeping the legacy DTI for ASCII-only recipients. However, if a new DTI is used
for Varicode I thought that incompatible clients would reject text following the
new DTI.

de Wes Johnston:
>The problem with this, ... is that some of those 8bit bytes would be
>non-printable ascii characters. Like MIC-e packets they would get clobbered in
>the internet system.

Isn't protocol translation a function of a gateway server? In any case, I am
trying to wring a bit more use from the severely constrained 1200 bps AFSK
environment most hams use. If we need to fix our gateways to the Internet, that's
a separat

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23. [aprsspec] RE: Varicoded Message, Bulletin, Announce Proposal

From: Bill Diaz <william.diaz@attbi.com>
Date: Sat, 13 Jul 2002 09:42:32 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89187-2002.07.13-10.21.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Saturday, July 13, 2002 08:45, cbertaut@megapipe.net
[SMTP:cbertaut@megapipe.net] wrote:
> Some Replies:

> de KC9XG:
> >The varicoded payloads will not be decodable by Kenwood D7, D700's and
(I
> >think) HamHud etc.
> >It is also possible that some existing client applications may encounter

> >difficulty when receiving these packets.

> True. The D7, etc. seem to be hard-coded to decode only ASCII messages,
etc.
> That's why I recommend using a new Data Type Identifier for Varicoded
text and
> keeping the legacy DTI for ASCII-only recipients. However, if a new DTI
is used
> for Varicode I thought that incompatible clients would reject text
following the
> new DTI.

Some clients will look for APRS constructs in a payload regardless of the
DTI.

> de Wes Johnston:
> >The problem with this, ... is that some of those 8bit bytes would be
> >non-printable ascii characters. Like MIC-e packets they would get
clobbered in
> >the internet system.

The mangling of 8 bit characters by TNC's, IGATEs and servers takes several
forms. An 8 bit char may be deleted entirely, replaced with a space, or be
converted to 7 bit. It is quite common to see the original raw Mic-E
packet and one or more of the mangled packets on the IS. This mangling
also affects messages in languages that use 8 bit characters (Nordic etc).

The APRS IS and all client applications expect that a packet will be
terminated with a carriage return or carriage return and line feed.   Not
sure if it is possible for a carriage return to appear in the middle of a
varicoded string. Perhaps there is some method to preclude this from
happening?

> Isn't protocol translation a function of a gateway server? In any case, I
am
> trying to wring a bit more use from the severely constrained 1200 bps
AFSK

> environment most hams use. If we need to fix our gateways to the
Internet, that's
> a separat

Protocol translation of Mic-E packets proved to be a dismal failure. There
was no specification for the creation of the converted packets. Each
application constructed the packet differently. Some had mixed case, some
upper case, etc. Some applications added unique identifiers. Incorrect
decoding of raw Mic-E packet location information are still seen.

Protocol translation differences, errors or mangling of 8 bit characters of
a single packet causes multiple raw, mangled and coverted packets to
appear on the APRS IS.

The conversion of Mic-E packets is no longer recommended for the above
reasons.

What form would the conversion of a varicoded APRS message packet take?
 Would the conversion result in the creation of one or more APRS Spec 1.0
compliant messages with a maximum payload of 67 bytes? If the conversions
were gated to RF, you would have the original varicoded message and the
converted packets being transmitted along with any mangled versions of
packets that contained 8 bit char.

Any changes to the spec should be backwards compatible with existing
applications. It has proven difficult, if not impossible, to get users to
upgrade to current versions of APRS applications. Changes to firmware
based units would be even more difficult, and expensive.

Bill KC9XG

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24. [aprsspec] Re: New beta of aprsd 215 available

From: Dale Heatherington <dale@wa4dsy.net>
Date: Sat, 13 Jul 2002 10:58:53 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89190-2002.07.13-10.37.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've received reports that betas 4 and 5 do not compile on
RedHat 6.2. This was caused by a change in the makefile
to stop GNU g++ 3.1 compilers from emitting lots of "deprecated"
warnings. I've turned back on all warnings so RH 6.2
will be happy. Also I've tweeked some documenation.
We are getting real close....

The latest version can be downloaded at:

http://www.wa4dsy.net/aprs/index.html#aprsservers

--
Dale Heatherington
Web Page http://www.wa4dsy.net
Sent by KMail for Linux

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25. [aprsspec] Re: Varicoded Message, Bulletin, Announce Proposal

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 15 Jul 2002 11:15:27 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89475-2002.07.15-10.53.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Not wanting to rain on a good idea, but...
Isnt the average varicode about 5 bits? And since APRS currently uses 7

bit ASCII, this would mean that a 67 byte long APRS message could be
extended by only about 28 percent to say about 85 characters...

It seems to me that the payback of having 85 character lines instead of 67
byte is not much compared to the difficulty of implementing a system that
would have to be phased in over a long period of time...

Bob
  On Fri, 12 Jul
2002, wrote:

> Let me flesh out my idea a bit further. I am proposing a new
> Message/Bulletin/Announcement Data Type Identifier - let's say "\" to indicate
> Varicoded Messages, etc. The max. size is still 67 bytes, so more characters
> would generally be available for messages given the usual distribution of
> characters in message text. I suggest the use of G3PLZ's varicode alphabet, which
> would be interpreted by enabled APRS clients just like ASCII, since lookup tables
> are used for either ASCII or a Varicode to translate binary strings into text.
> The legacy message type, indicated by a DTI of ":" would remain in use to permit
> messaging to older client types. As a matter of convention, NOT specification,
> Bulletins and Announcements should not be Varicoded until Varicode-enabled APRS
> clients are the norm. G3PLZ's Varicode alphabet seems like a good fit because it
> was developed from character frequencies in English, not QSOs. Much of what is
> passed in a QSO is already encoded elsewhere in an APRS packet - e.g., callsigns,
> QTH, WX, etc. Varicoding messages could enhace the tactical utility of APRS by
> permitting longer free-form messages within single packets, which would help
> prevent channel congestio
>
>
> ---
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>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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26. [aprsspec] Re: New beta of aprsd 215 available

From: Dale Heatherington <dale@wa4dsy.net>
Date: Mon, 15 Jul 2002 17:35:35 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-89507-2002.07.15-17.14.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The beta continues to improve. I cleaned up
some minor html formatting problems on the
status pages and fixed the ?IGATE? query response.
Thanks to all those who submitted reports.

The latest version can be downloaded at:

http://www.wa4dsy.net/aprs/index.html#aprsservers

--
Dale Heatherington
Web Page http://www.wa4dsy.net
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27. [aprsspec] Write for PSR

From: "stanzepa@earthlink.net" <stanzepa@earthlink.net>
Date: Thu, 18 Jul 2002 13:17:24 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: stanzepa@earthlink.net
Message-ID: <LYR11589-90013-2002.07.18-12.56.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

TAPR members:

Here is your chance to become rich and famous! Well, maybe not rich, but certainly famous.

The editorial board of Packet Status Register (PSR, TAPR□s quarterly newsletter) is now soliciting articles, news items, etc. for the next issue of the newsletter. Topics related to digital Amateur Radio will be given preference and the editorial board reserves the right to determine what is suitable for publication.

E-mail your contributions to wa1lou@tapr.org ASAP because the deadline for the next issue of the newsletter is July 24.

73,

Stan Horzepa, WA1LOU, PSR Editor

---
mail2web - Check your email from the web at
http://mail2web.com/ .

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28. [aprsspec] findu backup update

From: Guy Story <kc5goi@tapr.org>
Date: Fri, 26 Jul 2002 23:29:08 -0500 (CDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-91267-2002.07.27-00.08.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have received all the names that have made donations to the backup server.
If you are missing or have a correction, email me off the list servers. I also found out last saturday that there were a few checks still not run. That was taken care of early this week and pushed the total to $6700.

I wish I could tell everyone that the server is in but I found out that the
original cart we had created expired. That occured due to the delay in finding the 501c3 document. The document will allow Dell to give us a break
on the sales tax. Dell will quote the final price when they get the document.
The treasurer for the DCARA was on vacation the week I found out that the cart was fixing to expire. We have all the documentation in place and a much higher amount that we had when the cart was built for the order.

Additional delays that have occured have been the results of work, 2 bike rides (MADD and MS150) family and other assorted "disasters" that life deals
out.

Let me talk about the server instead of excuses. Clint Miller , KD5BYY is going to be the primary admin on the server. We will be third and I am looking for someone to act as the secondary. That person will need to be very knowledgeable about Linux, Apache and sql databases. I have had some discussion with Steve about the redundancy levels. Clint is an owner of Itel-Tigerbyte and specs out all our equipment. The backup server will be featuring tape backup and a small raid array. If a system failure happens and it takes out the data disk and it's raid mirror, the tape backup will

save that data. The server is not going to be built by Dell with all the memory that is planned for it. Dell is very proud of it's memory upgrades and we can beat the pricing by using local vendors for memory. We orginally
wanted to get a rack mountable system but that costs more than it is worth.
It is amazing what a rack mount form factor can do to cost. It will have a dedicated battery backup and will talk to the UPS so if it needs to shut down, it can do so in an intelligent manner. Last thing we want is to see a
corrupt database due to a bad shutdown.

The server will be located at the co-location facility in Dallas Texas. It will be connected via a T1 that links back to the Denton office. The Denton
office is feed by a buisness class 1.5 megabit DSL circuit. The Dallas Co-location facility also has redundant power and generator backup.

When I have the cart that is ordered I will post it to the lists so you can
see what your donations purchased. Pictures will also be posted when the server arrives.

Many hams contacted me directly offering to help purchase or find a location
to make the server home. Thank you everyone for your offers. They were not ignored or treated lightly.

I want to thank everyone for being patient in this endevor. It has taken longer than anyone expected, but then again, it has exceeded most peoples wildest expections. It will be worth the wait. Spider has been instrumental
in the donation collection process. Over half the collected donations were routed through him. Jim, I was not joking when I said you won the race. Brent was also a major source of donation collections with his generous offer. TAPR, as always, was a great helper and sport. We all owe these guys
a big thanks at this time. The most important players have been those of you
who were able to make donations. Pat yourselves on the back. You deserve it.

73

--
Guy Story, KC5GOI
Itel-Tigerbyte LLC
gstory@tigerbyte.com
940.891.4575

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August 2002

Original source file: aprsspec.0208
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0208

1. [aprsspec] summer 2002 issue of Packet Status Register

From: "Stan Horzepa" <stanzepa@earthlink.net>
Date: Tue, 6 Aug 2002 8:17:46
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-92983-2002.08.06-08.57.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The summer 2002 issue of Packet Status Register (PSR) is now available at
www.tapr.org.

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2. [aprsspec] aprsd 215 beta 8 available

From: Dale Heatherington <dale@wa4dsy.net>
Date: Sat, 10 Aug 2002 10:33:52 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-93548-2002.08.10-10.12.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

A new public beta of aprsd 2.1.5 is up on wa4dsy.net.

Since the last aprsd beta release no. 7,
Pete Loveall and I have worked out some additions
and improvements to the new q construct. These
changes are now in beta 8. Please upgrade
all previous aprsd betas so your servers will
be 100% compatable with the core servers.

Download it at (188K):
http://www.wa4dsy.net/Files/aprsd215b8.tgz

Documentation is here:
http://www.wa4dsy.net/aprs/aprsdDOC.html

--
Dale Heatherington
Web: http://www.wa4dsy.net

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Spec Clarification Request

From: "E. Tupis" <w2ev@rochester.rr.com>
Date: Thu, 15 Aug 2002 09:06:10 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94050-2002.08.15-08.49.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'd like to formally request that the following be considered by those
"in the loop" in making these decisions...

== The issue ==
The way that icon determination for 4-cypher Grid-in-Status
transmissions is ambiguous and can lead to unintended result, unless
clarified.

== Example ==
This is a 6-cypher grid w/icon & overlay identified (no ambiguity):
>FM19XXBV will display the "V" icon with the letter "B" overlayed

Is this a 4-cypher grid w/icon & overlay or is this a 6-cypher grid with
a forgotten icon & overlay? (ambiguity):
>FM19XX   will display the "X" icon with the letter "X" overlayed

== Suggested Solution ==
Require 6-cypher gridsquare for Grid-in-Status when icon & overlay is
desired

o When no icon & overlay is included, display as gridsquare icon
o When only 4-cyphers are used, accept and display as gridsquare icon

Respectfully,
Ev, W2EV

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4. [aprsspec] Grid-in-Status Ambiguous Icon & Overlay followup?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sun, 18 Aug 2002 10:18:31 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94330-2002.08.18-10.05.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

A while ago, I floated the above. No responses or comments on- or off-list to date. Should I continue to await comment or assume there is no interest in the topic? Either way is fine...I'm simply curious.

Ev Tupis, W2EV

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] Re: Spec Clarification Request

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 19 Aug 2002 10:45:19 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94479-2002.08.19-10.25.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 15 Aug 2002, E. Tupis wrote:

> I'd like to formally request that the following be considered by those
> "in the loop" in making these decisions...
>
> == The issue ==
> The way that icon determination for 4-cypher Grid-in-Status
> transmissions is ambiguous and can lead to unintended result, unless
> clarified.
>
> == Example ==
> This is a 6-cypher grid w/icon & overlay identified (no ambiguity):
> >FM19XXBV will display the "V" icon with the letter "B" overlayed
>
> Is this a 4-cypher grid w/icon & overlay or is this a 6-cypher grid with
> a forgotten icon & overlay? (ambiguity):
> >FM19XX will display the "X" icon with the letter "X" overlayed
>
> == Suggested Solution ==
> Require 6-cypher gridsquare for Grid-in-Status when icon & overlay is
> desired
> o When no icon & overlay is included, display as gridsquare icon
> o When only 4-cyphers are used, accept and display as gridsquare icon

I agree. The >GG##gg/$ construct was only meant for the full 6 digit gridsquare. If the full 6 digits are not konwn, then I think the letters AA or something else were supposed to be substituded....
Thanks
Bob

>
> Respectfully,
> Ev, W2EV
>
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil

> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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6. [aprsspec] Grid-in-Status Ambiguous Icon & Overlay followup?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sun, 18 Aug 2002 10:18:31 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94765-2002.08.20-14.53.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

A while ago, I floated the above. No responses or comments on- or off-list to
date. Should I continue to await comment or assume there is no interest in the
topic? Either way is fine...I'm simply curious.

Ev Tupis, W2EV

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---
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7. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 20 Aug 2002 18:35:56 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94863-2002.08.20-18.19.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 18 Aug 2002, Ev Tupis (W2EV) wrote:

> A while ago, I floated the above. No responses or comments on- or off-list to
> date. Should I continue to await comment or assume there is no interest in the
> topic? Either way is fine...I'm simply curious.

I sent a reply 2 days ago after I returned form Travel...
Maybe you missed it?

Bob
>
> Ev Tupis, W2EV
>
>
> ---
> You are currently subscribed to aprsspec as: kcechura@umr.edu
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>
>
> ---
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

```
PCsat WEB  page     http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ:       http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs     http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages     http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES     http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite  http://www.toad.net/~wclement/bruninga/mic-lite.html


---
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```

8. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

```
From: Mike Musick <mikemusick@earthlink.net>
Date: Tue, 20 Aug 2002 23:55:03 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94907-2002.08.21-00.36.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
>A while ago, I floated the above.  No responses or comments on- or off-list to
>date.  Should I continue to await comment or assume there is no
>interest in the
>topic?

Speaking for myself, Ev, no interest. I've never supported
grid-in-status and in four years nobody's noticed it isn't there. So
it's moot as far as I'm concerned.

Sorry.  :-(

   ...mike

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

9. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

```
From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 21 Aug 2002 08:47:37 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94940-2002.08.21-03.27.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
In message <LYR26815-94863-2002.08.20-18.19.23--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
>On Sun, 18 Aug 2002, Ev Tupis (W2EV) wrote:
>
>> A while ago, I floated the above.  No responses or comments on- or off-list to
>> date.  Should I continue to await comment or assume there is no interest in
>the
>> topic?  Either way is fine...I'm simply curious.
>
>I sent a reply 2 days ago after I returned form Travel...
>Maybe you missed it?

I think I also missed it. However, I didn't think there was any
ambiguity in the spec regarding 4 character and six character grids. Or
perhaps I'm forgetting what Ev originally asked?

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

---
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```

10. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

```
From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Wed, 21 Aug 2002 06:14:08 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94947-2002.08.21-05.55.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

Mike Musick wrote:
>
> >A while ago, I floated the above. No responses or comments on- or off-list to
> >date. Should I continue to await comment or assume there is no
> >interest in the
> >topic?
>
> Speaking for myself, Ev, no interest. I've never supported
> grid-in-status and in four years nobody's noticed it isn't there. So
> it's moot as far as I'm concerned.

Hi Mike,
That makes sense to me from a code writing standpoint. I guess I'm asking from
a protocol perspective, should an author (present or future) wish to invoke the
function. Thanks for the reply, though. I wasn't sure how to interpret the
silence...and now realize that Lyris burped at about the same time as I floated
the question.

Appreciate your reply.

Best wishes,
Ev

--
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11. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Wed, 21 Aug 2002 06:27:51 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94949-2002.08.21-06.08.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> >I sent a reply 2 days ago after I returned form Travel...
> >Maybe you missed it?
>
> I think I also missed it. However, I didn't think there was any
> ambiguity in the spec regarding 4 character and six character grids. Or
> perhaps I'm forgetting what Ev originally asked?

The ambiguity occurs when a 4-cypher grid is sent, using grid-in-status. I
discovered it as I was designing a new set of icons to release to the BEACONet
community (where we use GR##ID exclusively)...

>GR##IDoI will display an icon associated with "I" with an overlay of "o".

>GR##ID is ambiguous as one doesn't know if the intent was to send a 6-cypher grid without an icon or
overlay expressly chosen or if it is a 4-cypher grid with an icon of "D" and an overlay of "I".

I offered the suggestion that the grid-in-status spec consider requiring
6-cypher grids and to display as /G if there is no icon/overlay shown...but am
more interested in removing the ambiguity than necessarily getting stymied by
how that is accomplished right now. I was suprised by the lack of comment on
it, but then realized that the Lyris system "burped" at around the same time and
many may have missed the post.

Best wishes,
Ev, W2EV
http://www.BEACONet.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 21 Aug 2002 13:28:00 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-94954-2002.08.21-08.08.36--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

In message <LYR26815-94949-2002.08.21-06.08.37--roger#peaksys.co.uk@lists.tapr.org>, Ev Tupis (W2EV) <w2ev@arrl.net> writes
>> >I sent a reply 2 days ago after I returned form Travel...
>> >Maybe you missed it?
>>
>> I think I also missed it. However, I didn't think there was any
>> ambiguity in the spec regarding 4 character and six character grids. Or
>> perhaps I'm forgetting what Ev originally asked?
>
>The ambiguity occurs when a 4-cypher grid is sent, using grid-in-status. I
>discovered it as I was designing a new set of icons to release to the BEACONet
>community (where we use GR##ID exclusively)...
>
>>GR##IDoI will display an icon associated with "I" with an overlay of "o".
>
>>GR##ID is ambiguous as one doesn't know if the intent was to send a 6-cypher
>grid without an icon or overlay expressly chosen or if it is a 4-cypher grid
>with an icon of "D" and an overlay of "I".

Have a read of section 16 of the APRS spec. You will see that the
table/overlay and symbol characters must be included, they are not
optional. If you only send a total of six characters, then it must be
interpreted as a four character locator.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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13. [aprsspec] Test

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Wed, 21 Aug 2002 19:37:30 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95005-2002.08.21-19.19.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ping

Ev

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

14. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 22 Aug 2002 08:29:49 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95115-2002.08.22-08.09.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 20 Aug 2002, Mike Musick wrote:

> Speaking for myself, Ev, no interest. I've never supported
> grid-in-status and in four years nobody's noticed it isn't there. So
> it's moot as far as I'm concerned.

So APRS still does not have a GRIDSquare format that can be received by
all software... what a shame... :-(
And of course, no user who does not see it will not konw that he isnt
seeing it, so how will he know to complain..

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

15. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 22 Aug 2002 08:46:40 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95116-2002.08.22-08.26.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 21 Aug 2002, Ev Tupis (W2EV) wrote:

> > >I sent a reply 2 days ago after I returned form Travel...
> > >Maybe you missed it?

> how that is accomplished right now. I was suprised by the lack of comment on
> it, but then realized that the Lyris system "burped" at around the same time and
> many may have missed the post.

Yes, it appears that lyris ate my reply. Here it is:

> I agree. The >GG##gg/$ construct was only meant for the full 6 digit
> gridsquare. If the full 6 digits are not konwn, then I think the
> letters ZZ or something else were supposed to be substituded....
> Thanks
> Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

16. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 22 Aug 2002 08:48:08 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95118-2002.08.22-08.28.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 21 Aug 2002, Roger Barker wrote:

> Have a read of section 16 of the APRS spec. You will see that the
> table/overlay and symbol characters must be included, they are not
> optional. If you only send a total of six characters, then it must be
> interpreted as a four character locator.

Yes, that is the correct interpretation too...

bob
>
> --
> Roger Barker, G4IDE - roger@peaksys.co.uk
> For UI-View go to - http://www.UI-View.com
> For WinPack go to - http://www.peaksys.co.uk
>
> ---
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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17. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: James Jefferson <jjeffers@aprsworld.net>
Date: Thu, 22 Aug 2002 11:51:24 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95148-2002.08.22-12.31.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wednesday 21 August 2002 05:27 am, Ev Tupis (W2EV) wrote:
> The ambiguity occurs when a 4-cypher grid is sent, using grid-in-status. I
> discovered it as I was designing a new set of icons to release to the
> BEACONet community (where we use GR##ID exclusively)...

In my aprsworld.net software I use the following algorithm:

extract the 2 letter / 2 digit square

then

if next two letters are both upper case then I assume it is a 6 character
grid square.

Here's the code:

```
void extract_gridsquare (struct position *pos, char *square) {
   int i;
   int len = strlen (square);

   if ( verbose & 4 )
      printf("Extracting grid square\n");
   if (square[0] >= 'A' && square[0] <= 'I') {
      pos->longitude = (square[0] - 'A' + 0) * 20 - 180;
   } else {
      pos->longitude = (square[0] - 'J' + 0) * 20;
   }

   if (square[1] >= 'A' && square[1] <= 'I') {
      pos->latitude = (square[1] - 'A') * 10 - 90;
   } else {
      pos->latitude = (square[1] - 'J') * 10;
   }

   pos->latitude += (square[3] - '0');
   pos->longitude += (square[2] - '0') * 2;

   if (isupper (square[4]) && isupper (square[5])) {
#define LAT 0.0416666
#define LAT_HALF  0.0208333
#define LON 0.0833333
#define LON_HALF  0.0416666
      pos->latitude += (square[5] - 'A') * LAT + LAT_HALF;
      pos->longitude += (square[4] - 'A') * LON + LON_HALF;

      for (i = 0; i <= len - 7; i++)   // Swallow grid square and space
         square[i] = square[i + 7];
   } else {
      pos->latitude += 0.5;
      pos->longitude += 1;

      for (i = 0; i <= len - 5; i++)   // Swallow grid square and space
         square[i] = square[i + 5];
   }
}
```

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

18. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Mike Musick <mikemusick@earthlink.net>
Date: Thu, 22 Aug 2002 15:07:48 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95156-2002.08.22-15.49.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

[WARNING - Working for myself has been brutal and I have not been
getting much sleep lately; the bags under my eyes have become steamer
trunks. So I'm currently running at about S9+20 on the grumpy
meter... just ask my wife. Given that caveat:]

>So APRS still does not have a GRIDSquare format that can be received by
>all software... what a shame... :-(

Consider it a volley in my quixotic "war against the arcane", Bob.
Maidenhead is a poster child for "arcane" in the first place. Then we
come along and create and exception-to-the-exception rule putting
position data in static informational text to accommodate a >0.01%
usage in an experimental context. Arcane ^ 4.

I'll be even more blunt - if somebody is taking the time to compute,
generate or otherwise figure-out 6-digit Maidenhead coordinates, they
have a GPS in their hand. If they have a GPS, cut the BS and transmit
lat/lon.

>And of course, no user who does not see it will not konw that he isnt
>seeing it, so how will he know to complain..

That's not the way it works, especially with my application. Folks
run pAPRS as a second station, usually mobile. So they frequently
have the opportunity to compare what they see on the handheld to what
they see on the desktop... and I usually hear about it when there's a
divergence. I have NEVER heard from a user (and I checked!) about
grid squares in the four years the app has been around.

   ...mike

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19. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Fri, 23 Aug 2002 06:34:23 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95239-2002.08.23-06.17.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
>
> On Wed, 21 Aug 2002, Roger Barker wrote:
>
> > Have a read of section 16 of the APRS spec. You will see that the
> > table/overlay and symbol characters must be included, they are not
> > optional. If you only send a total of six characters, then it must be
> > interpreted as a four character locator.
>
> Yes, that is the correct interpretation too...

That makes sense to me, too. I knew I'd get the straight scoop if I asked.
Thanks, guys.

Kind regards,
Ev, W2EV

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20. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Fri, 23 Aug 2002 07:01:50 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95243-2002.08.23-06.44.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> That's not the way it works, especially with my application. Folks
> run pAPRS as a second station, usually mobile. So they frequently
> have the opportunity to compare what they see on the handheld to what
> they see on the desktop... and I usually hear about it when there's a
> divergence. I have NEVER heard from a user (and I checked!) about
> grid squares in the four years the app has been around.

Mike,
This is probably about to change. I'm now deeply involved in a discussion among
microwave contesters in which the topic of BEACONet.25/APRS has caught fire (in

a very positive way). These are people who live-and-die by 6-character
gridsquares and operating from remote locations using Palm Pilots to log
contacts. To date, all I've suggested using is a laptop and UI-View, because it
(and APRSdos) is the only APRS software that behaves in a way as to make it VHF
narrowband (read: BEACONet) friendly (a number of reasons, which are beyond the
scope of this note).

I guess it's time for me to download pAPRS and play with it's [GG##gg]
personality to see if it is friendly, too. The whole UI-Frame concept is
misunderstood by a vast majority of ssb/cw VHF operators. I've finally made an
inroad to a community that is starting to see the value of using it to *support*
their interested (not replace it). You may see more action on pAPRS and grid
support as a result.

Ev, W2EV

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21. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 23 Aug 2002 09:00:33 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95256-2002.08.23-08.40.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 22 Aug 2002, Mike Musick wrote about GRID-IN-STATUS:

> If somebody is taking the time to compute, generate or otherwise
> figure-out 6-digit Maidenhead coordinates, they have a GPS in their
> hand. If they have a GPS, cut the BS and transmit lat/lon....
> ... I have NEVER heard from a user (and I checked!) about
> grid squares in the four years that [pocketAPRS] has been around.

Ok, but my problem comes about when I have to give recommendations to
AMSAT and other packet operators and users of PCsat, UO22, and ISS as to
what to use as the fundamental simple PACKET beacon? I can assure you
that the one and only HAM radio accepteble lowest common denominator is
grid square.

It is the SPACE and Meteor Scatter and other DX applications of APRS that
are the only significant reason why I care at all about grid square. And
as you konw, working the satelites with packet (and APRS) has been my
forte for the last several years...

If I try to tell AMSAT folks that they have to use an APRS formatted
packet or a GPS LAT/LONG, then it raises hackles and anti-APRS sentiment.
Gridsquares have been used via SAREX, MIREX and now ARISS as the defacto
default since we launched the first packet digipeater back in 1990. So it
has always been easy to just say "transimt your GRID square and oh, by the
way, put a ">" in front of it and then everyone with APRS and a kenwood
will see you too.... and add a"/X" on the end if you want to indicate
your house, car, motorcycle, etc...

So I agree completely with your conclusion, that this is a 1% of 1%
APRS application, but on the other hand, it is closer to 90% of everyone
on the satelites... It is very frustrating for me that I cannot tell
AMSAT a single format that all APRS softare will plot. Same goes for
meteor scatter and now BEACONNET. Kenwoods cannot tune to the BEACON NET
frequency and copy anything, because they changed two bytes in the
TOCALL....

Same goes for APRS omni-DFing. It is a very very powerful means to locate
a jammer nearly instantly without anyone anyhwere having any DF
equipment. And it is only used 1% of 1% of the time... but when you need
it, it should be there...

I am disappointed that none of the other authors have implemented this
fundamental APRS techniique... No, the users havent asked for it, because
unless they used APRSdos, they dont know of its power. ANd since no one
enters APRS on APRSdos anymore, but ususally come in through a windows
application, they have a limited, and skewed view of what APRS is supposed
to be able to do....

To see what the OMNI-DF screen (based inversly on PHG) looks like see:

APRS DFing...   http://www.ew.usna.edu/~bruninga/dfing.html

Bob, WB4APR

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22. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Mike Musick <mikemusick@earthlink.net>
Date: Fri, 23 Aug 2002 14:55:29 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95320-2002.08.23-15.36.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 9:00 AM -0400 8/23/02, Bob Bruninga wrote:
>On Thu, 22 Aug 2002, Mike Musick wrote about GRID-IN-STATUS:
>
>> If somebody is taking the time to compute, generate or otherwise
>> figure-out 6-digit Maidenhead coordinates, they have a GPS in their
>> hand. If they have a GPS, cut the BS and transmit lat/lon....
>> ... I have NEVER heard from a user (and I checked!) about
>> grid squares in the four years that [pocketAPRS] has been around.
>
>Ok, but my problem comes about when I have to give recommendations to
>AMSAT and other packet operators and users of PCsat, UO22, and ISS as to
>what to use as the fundamental simple PACKET beacon? I can assure you
>that the one and only HAM radio accepteble lowest common denominator is
>grid square.
>
>It is the SPACE and Meteor Scatter and other DX applications of APRS that
>are the only significant reason why I care at all about grid square. And
>as you konw, working the satelites with packet (and APRS) has been my
>forte for the last several years...

Can I be blunt, Bob? (Remember - you were warned that I was grouchy!)
Most of us who are deeply involved in APRS are doing so because of
its core application, AVL, with equally important uses in WX object
communication. When DX beaconing and the satellite stuff usurped the
discussions you seemed to be completely oblivious to all the eyes
rolling back.

While the rank-and-file were concerned with trying to solve the
problems of AVL, network management and the Internet side, you were
off in the woods somewhere pointing a beam skyward. That's fine, and
more power to you, but your attempts to transmogrify all of APRS to
fit your current interests have fallen on a lot of deaf ears. With
due respect, trying to make us feel guilty over issues that a lot of
us frankly don't care about just can't be very productive.

>So I agree completely with your conclusion, that this is a 1% of 1%
>APRS application,

So the problem is...?

>Same goes for APRS omni-DFing. It is a very very powerful means to locate
>a jammer nearly instantly without anyone anyhwere having any DF
>equipment. And it is only used 1% of 1% of the time... but when you need
>it, it should be there...

You are making a serious mistake bringing this one up with me. Did
you not pay any attention at all to our quiet little chat three
Daytons ago? I was quite startled when you resumed beating this drum
a few months back, but I bit my tongue.

Anyway, I distinctly recall taking advantage of a lull in the booth
traffic for this. I told you that from years of direct experience,
I've learned that by the time a "network" of ad hoc receive stations
QSY and resolve their lack of calibration plus the terrain and
propagation anomalies to get the *first* approximate reading, one
person with narrow-aperture RDF tools has found it, fixed it and is
already relaxing at home with beer in hand.

Using APRS like this is like pounding nails with a wrench. There is a
better, much more effective tool, and, yes, thank goodness, you had
the foresight to accommodate that better tool as well.

>I am disappointed that none of the other authors have implemented this
>fundamental APRS techniique...

Is there maybe a message here? My gosh, I'm the only one besides you
who even supports the on-air protocol for vector DF, a fact that has
not been lost on the serious RDF fraternity.

For those of us who actually know RDF, "omni DF" is a complete
non-starter. Sorry to burst your bubble this way; don't forget that I
did at least try to do it "offstage".

   :-/

I guess if there's one general piece of advice I can offer, it's to
stop trying to make APRS into "the Swiss army knife of ham radio".
Swiss knives are great for the infrequent quick fix, but try to do
anything serious and you'll bust your knuckles. Let's concentrate on
refining what we do sort of well and not heap more stuff on a clogged
system just because we've managed to fabricate a faint connection to
another prospective application.

   ...mike

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23. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 23 Aug 2002 17:41:03 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95337-2002.08.23-17.21.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 23 Aug 2002, Mike Musick wrote:

Bob Wrote:
> >Ok, but my problem comes about when I have to give recommendations to
> >AMSAT and other packet operators and users of PCsat, UO22, and ISS as to
> >what to use as the fundamental simple PACKET beacon? I can assure you
> >that the one and only HAM radio accepteble lowest common denominator is
> >grid square.
>
> Can I be blunt, Bob? (Remember - you were warned that I was grouchy!)
> Most of us who are deeply involved in APRS are doing so because of
> its core application, AVL, with equally important uses in WX object
> communication. When DX beaconing and the satellite stuff usurped the
> discussions you seemed to be completely oblivious to all the eyes
> rolling back.

Ah, but these people with rolling eyes do not understand APRS!

APRS is a tactical real time digital packet communications system.
Remember, APRS stands for Automatic Packet Reporting System. It was
designed to provide a common definition of UI packets that would convey
meaningful information to everyone on frequency. It was intended to
provide a means to communicate digitally, EVERYTHING of interest to the
fixed or mobile operator that was REAL-TIME... AVL is just one part of
APRS...

Yes, when GPS became cheap we also referred to the "P" as position
reporting. But in no uncertain terms, APRS is not "an AVL system" only.
Never was. It is this tendency for HAMdom to keep trying to stuff APRS
into an "AVL" box that is limiting our ability to communicate digitally
and people's understanding of it... APRS should be able to convey to ALL
users in its local area QUICKLY, ANYTHING of interest to everyone in that
area. From the beginning, that included typical HAM radio interests of
AVL, WX, DFing and DX.

> While the rank-and-file were concerned with trying to solve the
> problems of AVL, network management and the Internet side, you were
> off in the woods somewhere pointing a beam skyward.

Me thinks you may be the one lost in the woods....

An AVL system based on fixed stations using a fixed plant Internet
linked system without satellite access, leaves 95% of the planet
with NO connectivity. Even now, 80% of the area of the USA has no APRS
network. But with Satellites, we get coverage for any HAM anywhere
worldwide at least 12 times a day.

A narrow definition of APRS that will only work in the population
centers of the USA and then only under personally defined terms
of what constitutes an AVL system seem to me to be missing the mark...

> That's fine, and more power to you, but your attempts to transmogrify
> all of APRS to fit your current interests have fallen on a lot of deaf
> ears. With due respect, trying to make us feel guilty over issues that a
> lot of us frankly don't care about just can't be very productive.

Grid Square formats were in APRS from 1993. I counter that they are not
"current" interests other than my 9 year frustration that late comers to
APRS are not fully implementing what APRS was designed to do and this
leaves the term "APRS as ambiguous if we have no standards among the
various systems and they only implemented the obvious AVL features...

> >So I agree completely with your conclusion, that this is a 1% of 1%
> >APRS application,
>
> So the problem is...?

Simple:
If Home depot only stocks what 99% of the people want, then by
definition, any project that requires 100 parts will always be incomplete
because of the 1% missing. THus, you can never go to one store and get
everything that you need for a project. THis is shortsitedness in the
extreme. And frustrating for the consumer.

One cannot take features and leave them out based on frequency of use.
One must also consider importance of use. Take the windshield wipers on
a car. One typically only uses them 1% of the time. Hummh.. must be
practically useless... How about the trailer hitch? Hummh. Only used 1%
of the time. Must not be any need for it.... How about the HAM radio in
your car... Hummh. Only 0.005 people in the USA are HAMS. No need for
General Motors to design cars with electronic ignition systems that can
withstand Radio Transmissions... shucks, it wont affect 99.5% of the
drivers... must not be worth it...

Some of the most important features in some systems are the LEAST used.
Take a fire alarm for example...

etc...

de WB4APR, Bob

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24. [aprsspec] Re: OMNI DFing for eveyone in APRS...

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 23 Aug 2002 18:40:19 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95355-2002.08.23-18.20.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 23 Aug 2002, Mike Musick wrote:

Bob Said:
> >Same goes for APRS omni-DFing. It is a very very powerful means to
> >locate a jammer nearly instantly without anyone anyhwere having any DF
> >equipment. And it is only used 1% of 1% of the time... but when you
> >need it, it should be there...
>
> You are making a serious mistake bringing this one up with me. Did
> you not pay any attention at all to our quiet little chat three
> Daytons ago?...

>
> I told you that from years of direct experience, I've learned that by
> the time a "network" of ad hoc receive stations QSY and resolve their
> lack of calibration plus the terrain and propagation anomalies to get
> the *first* approximate reading, one person with narrow-aperture RDF
> tools has found it, fixed it and is already relaxing at home with beer
> in hand.

But I disagree completely with this assessment. I did then, and I
disagree completely with it now. That approach to DF is why no one ever
finds a jammer unless the Jammer does the same thing over and over
day in and day out obnoxiously and becomes such a nuisance that the
talented and prepared DF guys are hunkered down and ready to pounce...

But, unfortunately, that is the status QUO of typical HAM radio, because
everyone still thinks of APRS as only an AVL system and does not even konw
of its omni-dfing power. APRS is not just an AVL system. It is a tool
for digital real-time data communications in amateur radio...

Here is how OMNI DFing in APRS(dos) works:

1) Not everyone, not even some, but ONLY ONE person needs to have APRS.
2) A jammer transmits... Everyone on the repeater instantly switches to
   REV and notices whether they hear it... This take maybe 10 secs max.
3) The jammer only needs to make one transmission. No more.
4) At his leisure, the one APRS user can ask for "reports". The voice
users say "I'm in Bowie, nothing heard...." or "Im on the north part of
the beltway, Nothing heard"... and so on. This takes maybe a minute.
5) the one and only one APRS user then simply moves his cursor to
each reported area, ADDS an OMNI-DF report to that place on the map for
each report and instantly, his APRS(dos) plots the PHG circles drawn inversly
proportional to signal strength and instantly the APRS user (and anyone
else on 144.39 for tht matter) sees the complete picture.

Then to the most casual observer anyone can see where the jammer both
"IS" and "ISNT". And due to the way radio works, 90% of the reports will
be showing the 90% of the area where the jammer ISNT. Even if NO ONE
hears the jammer, eliminating 90% of the area where he ISNT is very, very
valuable...

When I have done this on a FOX hunt, I can usually locallize the area of
the FOX within the first 10 minutes of an event (by asking for reports on
the local repeaters)... I can tell from this approach the general area of
the jammer LONG before the DF equipped hounds are anywhere near the
area... In fact, when they roll in 1 to 3 hours later, after having
driven all over half the state, I could have told them in the first 10
minutes where to go FIRST and then hone their search.

No, OMNI DFing has no chance of finding the guy's house in the "last
mile"... But since it can localize the area generlaly to a neighborhood
almost instantly, it is very valuable at localizing the source of
interference. Yes, then call in the DF gear to nail him. But most of the
time, announcing on the repeater that "the signal appears to be coming
from "Tinseltown" will cause the "Tinseltown" jammer to very quickly
re-think his strategy...

> Using APRS like this is like pounding nails with a wrench. There is a
> better, much more effective tool (Automatic DF Equipment), and, yes,
> thank goodness, you had the foresight to accommodate that better tool
> as well.

Yes, that stuff works great for ANNOUNCED events and the 2% of HAM radio
operators that purchase and use it, but it does practically nothing for
come-as-you-are tactical-real-time digital communications of what is
happening routinely in one's area. APRS has a MAP. APRS knows what
people's radio range is from their PHG. It is ludicrous to me that all
APRS applications don't simply tie these two together and apply them to
the most routine occurance and that is locating the source of an
interfering signal...

> Is there maybe a message here? My gosh, I'm the only one besides you
> who even supports the on-air protocol for vector DF, a fact that has
> not been lost on the serious RDF fraternity.

Yes, but the RDF community is only 2% of the amateur population and when
a signal appears on a repeater that needs to be DF'ed, why not take the
data that is already available to everyone and plot it, instead of waiting
until you can call up the RDF crew and then wait for the jammer to raise
his head "again" later so the RDF folks can do their thing?

HALF of my frustration is that mobile FM hams dont instantly switch to reverse and report what they hear. But the reason they are not in that habit is because they dont know that APRS can use this information to instantly localize the signal. And they dont know that becuse only APRSdos does it. And these days most people have never seen APRSdos and are using the later programs that have not fully implemented APRS and so.... chicken-egg....

> For those of us who actually know RDF, "omni DF" is a complete
> non-starter. Sorry to burst your bubble this way; don't forget that I
> did at least try to do it "offstage".

Yes, and that attitude towards localizing signals is the problem. "No one can play in the RDF game unless they do it the old-fashioned brute-force gotta-have-the-most-toys" approach... When, actually, the data is avaiable to the other 98% of hamdom all the time.

On a FOX hunt RDF wins hands down.

But during the other 98% of the time in HAM Radiodom when you want to know the source of only a brief unauthorized transmission, you are far better off taking AVAILABLE data from EVEYONE on frequency than waiting a day or so to get an RDF team together and waiting for him to do it again...

Also, remember that APRSdos includes the Civil Air Patrol tried-and-true fade-circle OMNI DFing technique as well. And calling that a "non starter" overlooks decades of practical and successful applicaiton of that technique. With it, one person with a mobile radio and APRSdos can drive around and eventually find a signal all by himself.

> I guess if there's one general piece of advice I can offer, it's to
> stop trying to make APRS into "the Swiss army knife of ham radio".
> Swiss knives are great for the infrequent quick fix, but try to do
> anything serious and you'll bust your knuckles.

Ah... APRS !was! designed to be the QUICK FIX of HAM radio. It is supposed to be the "tactical-real-time digital" commmunications system that lets you communicate quickly and error free (digitally) about anything and everything that is happening LIVE in the local area. I dont know how many ways to say that.... And in that same vane it is NOT supposed to do "serious" long-term, permanent, bulk data, high data rate communications. All of those needs are best done with other systems on a different frequency.

> Let's concentrate on refining what we do sort of well and not heap more
> stuff on a clogged system just because we've managed to fabricate a
> faint connection to another prospective application.

Our difference of opinion is cleary rooted in our differing opinions over what APRS is. And I stand behind the original objectives of what APRS is supposed to be:

"A tacital-real-time digital communications system" for rapid exchange of short bursts of error-free data within an area of local operations.. And limiting definitions of what that data is to only AVL, is a sure way to make sure that APRS remains in most people's minds an AVL only system with no proactical value beyond that scope..

APRS is NOT an AVL system other than it is nice to know where the mobile stations in your LOCAL network are...

BUT APRS has a MAP, and APRS knows everyone's radio range (PHG) then why in the world not plot "signals heard or not heard" and let everyone SEE where the jammer IS and ISNT. The data is THERE! Why, oh why, not use it?

de WB4APR@amsat.org, Bob

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25. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 23 Aug 2002 16:38:30 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95362-2002.08.23-19.18.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Trying to post this again 'cuz the list software wouldn't let me do
it last time.

On Fri, 23 Aug 2002, Bob Bruninga wrote:

> Same goes for APRS omni-DFing. It is a very very powerful means to locate
> a jammer nearly instantly without anyone anyhwere having any DF
> equipment. And it is only used 1% of 1% of the time... but when you need
> it, it should be there...
>
> I am disappointed that none of the other authors have implemented this
> fundamental APRS techniique...

Ah, but Xastir has it. http://www.xastir.org

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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26. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 23 Aug 2002 16:42:12 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95363-2002.08.23-19.22.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 23 Aug 2002, Mike Musick wrote:

> Is there maybe a message here? My gosh, I'm the only one besides you
> who even supports the on-air protocol for vector DF, a fact that has
> not been lost on the serious RDF fraternity.

And Xastir. We can do Omni-DF and vector DF. We don't support
automated DF'ing though. If I had an RDF unit in-hand it'd be
supported.

> For those of us who actually know RDF, "omni DF" is a complete
> non-starter. Sorry to burst your bubble this way; don't forget that I
> did at least try to do it "offstage".

Unfortunately I'm probably in the "don't actually know RDF"
category. I've done a little, but am not an enthusiast. I can't
judge how well each method might work.

Curt Mills, WE7U   hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

27. [aprsspec] Is the message within spec ?

From: "Andrew Stubbs" <andrews@stusoft.com>
Date: Sat, 24 Aug 2002 13:50:05 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95434-2002.08.24-08.30.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

While testing a program I'm writing I noticed 2 messages that do not seem to
be within spec:

IRONMT>APRS,RCHFLD,SHEPRD*,qAS,K7UHP:/WB7REL WIDE IRON MT
(This is a position with timestamp - but there is no position)

G1OXB>APH104-7,qAS,G0RDI:=/4Ri*NH<y-!!A
(This is a postion without timestamp - but is looks like Mic-E?)

Is this correct or have I missed something ?

Thanx

Andrew

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

28. [aprsspec] Re: Is the message within spec ?

From: Steve Dimse <k4hg@tapr.org>
Date: Sat, 24 Aug 2002 08:57:09 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95435-2002.08.24-08.37.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/24/02 at 1:50 PM andrews@stusoft.com (Andrew Stubbs) sent:

>IRONMT>APRS,RCHFLD,SHEPRD*,qAS,K7UHP:/WB7REL WIDE IRON MT
>(This is a position with timestamp - but there is no position)
>
This is wrong, should be a status message (>), but errors in the manually
entered beacons of digis are quite common.

>G1OXB>APH104-7,qAS,G0RDI:=/4Ri*NH<y-!!A
>(This is a postion without timestamp - but is looks like Mic-E?)
>
This is the compressed format (AKA base 91) described in the spec.

Steve K4HG

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

29. [aprsspec] Re: Grid-in-Status Ambiguous Icon & Overlay followup?

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 24 Aug 2002 11:14:30 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95451-2002.08.24-10.54.46--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 23 Aug 2002, Curt Mills, WE7U wrote:

> On Fri, 23 Aug 2002, Bob Bruninga wrote:
>
> > Same goes for APRS omni-DFing. It is a very very powerful means to locate
> > a jammer nearly instantly without anyone anyhwere having any DF
> > equipment. And it is only used 1% of 1% of the time... but when you need
> > it, it should be there...
>
> Ah, but Xastir has it. http://www.xastir.org

Neato! Thanks. hard for me to keep up...
Now all we gotta do is get the general ham population to always listen to
the input whenever they want to find an interfering signal and report
their position even if they DONT hear anything...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

30. [aprsspec] Re: Is the message within spec ?

From: "Andrew Stubbs" <andrews@stusoft.com>
Date: Sat, 24 Aug 2002 16:46:32 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95454-2002.08.24-11.26.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> On 8/24/02 at 1:50 PM andrews@stusoft.com (Andrew Stubbs) sent:
>
> >IRONMT>APRS,RCHFLD,SHEPRD*,qAS,K7UHP:/WB7REL WIDE IRON MT
> >(This is a position with timestamp - but there is no position)
> >
> This is wrong, should be a status message (>), but errors in the manually
> entered beacons of digis are quite common.
>
> >G1OXB>APH104-7,qAS,G0RDI:=/4Ri*NH<y-!!A
> >(This is a postion without timestamp - but is looks like Mic-E?)
> >
> This is the compressed format (AKA base 91) described in the spec.
>
> Steve K4HG
>
> ---
So the IRONMNT will never appear on a Map until someone fixes the beacon ?

Sorry for sounding so dim, so both the "compressed format" and the "position
without timestamp" can start with a "=". (and others now I look more
closely)

That being the case, what approach do programmers take to tell them apart ?
It seems there is a variable record type without a unique identifying key ?

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31. [aprsspec] Re: Is the message within spec ?

From: Steve Dimse <k4hg@tapr.org>
Date: Sat, 24 Aug 2002 12:06:47 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95455-2002.08.24-11.47.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 8/24/02 at 4:46 PM andrews@stusoft.com (Andrew Stubbs) sent:

>So the IRONMNT will never appear on a Map until someone fixes the beacon ?
>
yes, since it is not sending a position, even if it is using a position format
character.

>Sorry for sounding so dim, so both the "compressed format" and the "position
>without timestamp" can start with a "=". (and others now I look more
>closely)
>
>That being the case, what approach do programmers take to tell them apart ?
>It seems there is a variable record type without a unique identifying key ?
>
This is all detailed in the APRS Spec (page 37).

The compressed format can appear anywhere a normal lat/lon field appears in the
spec. A normal Lat/Lon has a digit in the first position, while the compressed
report has the symbol table identifier.

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

32. [aprsspec] Re: Is the message within spec ?

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 24 Aug 2002 17:49:52 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95481-2002.08.24-17.30.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 24 Aug 2002, Andrew Stubbs wrote:

> G1OXB>APH104-7,qAS,G0RDI:=/4Ri*NH<y-!!A
> (This is a postion without timestamp - but is looks like Mic-E?)

I think it is a compresed format. But dont have spec in front of me to
confirm...

de WB4APR@amsat.org, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

33. [aprsspec] Re: Is the message within spec ?

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 24 Aug 2002 18:05:49 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95483-2002.08.24-17.46.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 24 Aug 2002, Andrew Stubbs wrote:

> Sorry for sounding so dim, so both the "compressed format" and the "position
> without timestamp" can start with a "=". (and others now I look more
> closely)

Yes, ANY position can be compressed. The leading TYPE character remains
the same. To tell the diffrence you must always look at the first digit
of LATITUDE. If it is numeric it is a normal LAT/LONG. If it is anyting
else, it is compressed...

de WB4APR@amsat.org, Bob

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34. [aprsspec] WX3P digi gone?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 24 Aug 2002 21:43:02 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95521-2002.08.24-21.26.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've returned to 144.390 for a project and noticed that one of the WNY area's
stalwart WIDE DIGI's -- WX3P -- is not active. Anybody know what happened? Is
Jack ok?

Ev, W2EV

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

35. [aprsspec] Unix/Linux APRS Help

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sun, 25 Aug 2002 09:13:15 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95604-2002.08.25-08.57.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I am now involved in a major elmer project and need to know about the
capabilities of the version(s) of APRS that work on the above OS's. I am
posting here because I'm trying to avoid the "stuff" that happens on the APRS
sig. I'm looking for information...not conflict.

This project requires a Unix/Linux APRS client with the ability to do the
following:

o Turn *off* ALTNET function (no matter what is in the to-call, the
  posit plots)
o Support both [GR##ID]-in-comment and >GG##ggOI-in-status formats
o Support for the RFONLY alias. This alias is correctly implemented with
  the following personality:
  RFONLY anywhere in the TOCALL will cause any IGATE to *not* pass the frame
  to the Internet stream.
o Easily import custom maps

Secondary Need (but not a deal-killer):
o Ability to ALTNET based on display icon, rather than TOCALL. Something
  like a BUDLIST/SUPLIST based on icon.

Any input as to title to suggest would be great. Thanks for helping.

Ev, W2EV
--
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36. [aprsspec] Re: Unix/Linux APRS Help

From: KC7ZRU - Tate <kc7zru@arrl.net>
Date: Sun, 25 Aug 2002 17:32:39 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95645-2002.08.25-19.12.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ev,

Forwarding your question to the xastir user's reflector.

I *think* it'll do all you ask. Since it's really the only APRS client
being actively developed for *nix, it's about your only real choice -
but what a choice it is!

73

"Ev Tupis (W2EV)" wrote:
>
> I am now involved in a major elmer project and need to know about the
> capabilities of the version(s) of APRS that work on the above OS's. I am
> posting here because I'm trying to avoid the "stuff" that happens on the APRS
> sig. I'm looking for information...not conflict.
>
> This project requires a Unix/Linux APRS client with the ability to do the
> following:
>
> o Turn *off* ALTNET function (no matter what is in the to-call, the
>   posit plots)
> o Support both [GR##ID]-in-comment and >GG##ggOI-in-status formats
> o Support for the RFONLY alias. This alias is correctly implemented with
>   the following personality:
>   RFONLY anywhere in the TOCALL will cause any IGATE to *not* pass the frame
>   to the Internet stream.
> o Easily import custom maps
>
> Secondary Need (but not a deal-killer):
> o Ability to ALTNET based on display icon, rather than TOCALL. Something
>   like a BUDLIST/SUPLIST based on icon.
>
> Any input as to title to suggest would be great. Thanks for helping.
>
> Ev, W2EV
> --

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> http://www.BEACONet.org

--
Casper, WY | CARC Repeater
DN62tt | 146.940
"The Dungeon" online at http://go.to/kc7zru
"RTFM" is NOT a 'four letter' word!

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

37. [aprsspec] Re: Unix/Linux APRS Help

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 26 Aug 2002 09:32:21 -0700 (PDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95701-2002.08.26-12.12.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 25 Aug 2002, Ev Tupis (W2EV) wrote:

> I am now involved in a major elmer project and need to know about the
> capabilities of the version(s) of APRS that work on the above OS's. I am
> posting here because I'm trying to avoid the "stuff" that happens on the APRS
> sig. I'm looking for information...not conflict.

The Xastir developers would be happy to discuss this with you on the
Xastir lists: The xastir-dev list would be best.

http://www.xastir.org will get you the subscription info.

Enough to this sig. It's not really for discussing particular APRS
variants.

I'll send you another note directly that discusses each point you
brought up.

Curt Mills, WE7U hacker.NO_*SPAM@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math." -- unknown
"Windows: Microsoft's tax on computer illiterates." -- WE7U

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

38. [aprsspec] Stuck

From: "Andrew Stubbs" <andrews@stusoft.com>
Date: Mon, 26 Aug 2002 17:52:08 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95705-2002.08.26-12.32.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Having read the v1 spec from the TAPR web site I am still currently at a
loss on one point 8(.

Chapters 9 and 10 decribe the 2 compression methods and how to correctly
decode them.

I have coded subroutines which correctly decode the message when passed a
string in the correct format for each of the compression types, but now I
come to devise the switching mechanism based on message content.

So my question is: "What unique characteristic(s) of a message allows me to
determine what compression method was used"

On the face of it 8 consecutive characters from the sub-set defining base91
encoding would seem the indicate that its base91 encoded, but as MIC-E also
uses a section of the ASCII table (albeit for a fewer number of bytes) there
is a potential for overlap. (or am I just being to paranoid?)

Thanx

Andrew M0AQM

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

39. [aprsspec] RE: Stuck

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Mon, 26 Aug 2002 12:21:40 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95709-2002.08.26-13.01.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You need to look at the packet data type. Mic-E packets have a
different type character than standard posits.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Andrew Stubbs [mailto:andrews@stusoft.com]
> Posted At: Monday, August 26, 2002 11:53 AM
> Subject: [aprsspec] Stuck
>
> types, but now I
> come to devise the switching mechanism based on message content.
>
> So my question is: "What unique characteristic(s) of a
> message allows me to
> determine what compression method was used"

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

40. [aprsspec] Re: Stuck

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 26 Aug 2002 14:12:50 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95714-2002.08.26-13.53.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 26 Aug 2002, Andrew Stubbs wrote:

> I have coded subroutines which correctly decode the message when passed a
> string in the correct format for each of the compression types, but now I
> come to devise the switching mechanism based on message content.

All messages in APRS use standard ASCII characters and there is no
compression applied to messages..

Bob

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

41. [aprsspec] APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 26 Aug 2002 19:19:35 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95738-2002.08.26-18.59.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I propose the following method for incorporating non ASCII alphabet
messages into APRS:

I think we need to establish a NEW message type that is for NON-ENGLISH
messages (that cant be spelled with ASCII):

```
ENGLISH MSGS:     :TOCALL  :message goes here
OTHER LANGUAGEs:  {MJ:TOCALL:message goes here

Notice that the "{" identifies a NEW APRS format
                "M" Means it is a new MESSAGE format
                "J" means it is Japanese (for example)
                ":tocall:" is the same as before (but variable length)
                "message" can use any 8-bit bytes needed...

This then makes it extensible to any alphabets..

Notice that I am suggesting for the NEW TOCALL to be variable length.
That will save bytes.  The only reason the existing message format had a
fixed-length for the TOCALL  was historical...

Since all software will IGNORE any NEW "{" format that it does not
recognize, this will make it easy to integrate into APRS new alphabets

But this only works for messages.  THe only other thing is the 20 bytes in
the STATUS field, but we should be able to handle them too with a leading
special character or something?

Bob


de WB4APR@amsat.org, Bob

PCsat WEB  page     http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ:       http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs     http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages     http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES     http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite  http://www.toad.net/~wclement/bruninga/mic-lite.html



---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

42. [aprsspec] RE: APRS non-ENGLISH formats

```
From: "AE5PL Lists" <HamLists@ametx.com>
Date: Mon, 26 Aug 2002 20:24:30 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95759-2002.08.26-21.04.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
But messages can already contain any 8 bit characters.  I understand the
desire to make it possible to identify a character set.  I recommend
using the standard message format so IGates and APRS-IS servers know
that these are messages and putting a character sequence after the colon
which follows the TOCALL to identify the character set.  In most cases,
the messaging using characters >= 0x80 is between two stations using the
same character set anyway so it wouldn't change their operation at all.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Monday, August 26, 2002 6:20 PM
> Subject: [aprsspec] APRS non-ENGLISH formats
>
> I propose the following method for incorporating non ASCII alphabet
> messages into APRS:

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

43. [aprsspec] RE: APRS non-ENGLISH formats

```
From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 27 Aug 2002 08:51:55 +0100
```

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95798-2002.08.27-03.33.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-95759-2002.08.26-21.04.45--roger#peaksys.co.uk@list
s.tapr.org>, AE5PL Lists <HamLists@ametx.com> writes

>But messages can already contain any 8 bit characters.

In practice yes - otherwise APRS would never be used in many EU
countries - but in theory no. The spec says messages may "contain any
printable ASCII characters except |, ~ or {".

In the world outside APRS, "printable ASCII characters" means the
characters 0x20 to 0x7F, and I have always assumed that it meant the
same in the APRS spec.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

44. [aprsspec] RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Tue, 27 Aug 2002 08:11:02 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95811-2002.08.27-08.51.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Good point. So it sounds like the spec needs to be changed to allow 8
bit characters since they are allowed on AX.25 and in use in other parts
of the world.

The exclusion of |, ~, and { is understandable as it keeps common
special characters used by TNC's from appearing in the data stream.
Same for characters < 0x20 (although Mic-E can use 0x1c & 0x1d).

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Roger Barker [mailto:roger@peaksys.co.uk]
> Posted At: Tuesday, August 27, 2002 2:54 AM
> Subject: [aprsspec] RE: APRS non-ENGLISH formats
>
> >But messages can already contain any 8 bit characters.
>
> In practice yes - otherwise APRS would never be used in many EU
> countries - but in theory no. The spec says messages may "contain any
> printable ASCII characters except |, ~ or {".
>
> In the world outside APRS, "printable ASCII characters" means the
> characters 0x20 to 0x7F, and I have always assumed that it meant the
> same in the APRS spec.

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45. [aprsspec] RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 27 Aug 2002 20:18:23 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95929-2002.08.27-19.59.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 26 Aug 2002, AE5PL Lists wrote:

> But messages can already contain any 8 bit characters. I understand the

> desire to make it possible to identify a character set. I recommend
> using the standard message format so IGates and APRS-IS servers know
> that these are messages and putting a character sequence after the colon
> which follows the TOCALL to identify the character set. In most cases,
> the messaging using characters >= 0x80 is between two stations using the
> same character set anyway so it wouldn't change their operation at all.

Although this is an alternative approach, I prefer leaving the exsiting
MESSAGE format untouched so that current applications do not begin to
display gyberish. By putting non-European/non-Western FONTS in a totally
new format, it avoids any backwards compatibility issues.

Bob

> > -----Original Message-----
> > From: Bob Bruninga [mailto:bruninga@usna.edu]
> > Posted At: Monday, August 26, 2002 6:20 PM
> > Subject: [aprsspec] APRS non-ENGLISH formats
> >
> > I propose the following method for incorporating non ASCII alphabet
> > messages into APRS:
>
> ---
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

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CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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46. [aprsspec] RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Tue, 27 Aug 2002 20:09:06 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-95938-2002.08.27-20.49.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Tuesday, August 27, 2002 7:20 PM
> Posted To: APRS Specification
> Conversation: [aprsspec] RE: APRS non-ENGLISH formats
> Subject: [aprsspec] RE: APRS non-ENGLISH formats
>
> display gyberish. By putting non-European/non-Western FONTS
> in a totally
> new format, it avoids any backwards compatibility issues.

I am not sure what software doesn't allow 8 bit characters in the
message. Even if some software doesn't display 8 bit characters,
doesn't even that software display the message converting the 8 bit
characters to 7 bit or spaces? I think that is still a better situation
than introducing a new format that would have a compatibility issue with
IGates and APRS-IS servers. Message packets get special handling for
gating purposes. Adding a new message format would make all current
IGates and APRS-IS servers incompatible with that format.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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47. [aprsspec] RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 28 Aug 2002 09:12:16 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96024-2002.08.28-08.52.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob proposes a new MESSAGE format for non-european/non-western Fonts
(such as Japanese and Chinese and what-ever...)
> > By putting non-European/non-Western FONTS in a totally
> > new format, it avoids any backwards compatibility issues.

AE5PL says:
> I think [putting 8 bit non ASCII printable characters in the existing
> message format] is still a better situation than introducing a new
> format that would have a compatibility issue with IGates and APRS-IS
> servers. Message packets get special handling for gating purposes.
> Adding a new message format would make all current IGates and APRS-IS
> servers incompatible with that format.

And that is exactly the intent. Bringing in these new completely
incompatible FONTS must be in a *new* non compatbile format as well. This
way current IGates ignore the new format completely and do not let it mess
up what we have... Then we upgrade the IGates to "properly" handle the
new non-compatible messages, rather than letting these totally gyberish
fonts munge up the existing APRS system.

By using a new format, we "do-it-right" by introducing a new format for
something that is totally incompatible with past practice and making sure
that it does not mess up what we already have... Yet, we then grow the
system to handle the new format....

There is no way that I want to have GYBERISH messages and bulletins
cluttering up existing MESSAGE lists and traffic pages. If end user
software has the ability to display these graphical fonts, then such end
user software is also easily able to take the new format, convert to the
new FONT and then integrate it into the existing message displays as
desired, but the on-air formats must *not* be intermingled or we distroy
existing systems.

Bob

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48. [aprsspec] RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 08:49:44 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96032-2002.08.28-09.30.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Wednesday, August 28, 2002 8:13 AM
> Posted To: APRS Specification
> Conversation: [aprsspec] RE: APRS non-ENGLISH formats
> Subject: [aprsspec] RE: APRS non-ENGLISH formats
>
> And that is exactly the intent. Bringing in these new completely
> incompatible FONTS must be in a *new* non compatbile format
> as well. This

Now we have gone from character sets to fonts. In either case, there
are literally hundreds of these with many different variations. Trying
to handle them within APRS will be virtually impossible.

> way current IGates ignore the new format completely and do
> not let it mess
> up what we have... Then we upgrade the IGates to "properly"

What do you mean "properly"? It is an important rule for APRS-IS that

NO software on APRS-IS modify packet payloads. That means that local
IGates are not to modify payloads in any way when retransmitting them on
to RF. If you change the payload, you have now changed the packet,
causing many more potential problems.

> handle the
> new non-compatible messages, rather than letting these
> totally gyberish
> fonts munge up the existing APRS system.

Because you don't understand a language doesn't mean that the message is
total gibberish. You are trying to dictate a ban on using 8 bit
characters in messages (what about status text and comment text?) to
meet your personal preferences.

> By using a new format, we "do-it-right" by introducing a new
> format for
> something that is totally incompatible with past practice and

But past practice has been to go ahead and use 8 bit characters anywhere
where text can be used.

> There is no way that I want to have GYBERISH messages and bulletins
> cluttering up existing MESSAGE lists and traffic pages. If end user

Then put a switch in your software to not display packets with 8 bit
characters.

> software has the ability to display these graphical fonts,
> then such end
> user software is also easily able to take the new format,
> convert to the
> new FONT and then integrate it into the existing message displays as
> desired, but the on-air formats must *not* be intermingled or
> we distroy
> existing systems.

Once again, a message is for communication between two stations. A
bulletin is for broadcasting to a group something of interest to that
group. In both cases, interception by non-involved persons should not
be the overriding factor on forcing them to use a format incompatible
with APRS-IS. While you can monitor everything that goes on in APRS, it
should not be a mandatory factor that you understand everything.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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49. [aprsspec] SV: RE: APRS non-ENGLISH formats

From: "Roger Bille" <roger.bille@telia.com>
Date: Wed, 28 Aug 2002 15:55:55 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96034-2002.08.28-09.34.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I think we should go the middle way :)

 1. The APRS Spec should be updated to support 8-bit characters to fully
support Western/European languages. This infact already works fine today in
most applications. The spec should also define which characterset and that
should be ISO-8859-1 (Latin 1) or the new updated ISO-8859-15 that is
proposed to replace ISO-8859-1. This will support: French, Spanish, Catalan,
Basque, Portuguese, Italian, Albanian, Rhaeto-Romanic, Dutch, German,
Danish, Swedish, Norwegian, Finnish, Faroese, Icelandic, Irish, Scottish and
English. It also support Afrikaans and Swahili.

 2. Add Bob's proposal for non ISO-8859-1(15) character sets. This include
the mulibyte character sets used in Asia where more than one byte (normally
2) define the character or more correctly (I think) a phonetic part.

 73 de sm5nrk/Roger

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50. [aprsspec] RE: APRS non-ENGLISH formats

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Aug 2002 15:22:01 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96040-2002.08.28-10.02.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-96032-2002.08.28-09.30.19--roger#peaksys.co.uk@list
s.tapr.org>, AE5PL Lists <HamLists@ametx.com> writes
[snip]
>It is an important rule for APRS-IS that
>NO software on APRS-IS modify packet payloads. That means that local
>IGates are not to modify payloads in any way when retransmitting them on
>to RF. If you change the payload, you have now changed the packet,
>causing many more potential problems.
[snip]

That reminds me of something I've kept meaning to comment on - Does
anyone know where all the trailing spaces on frames in the internet data
stream come from? Checking today, only about 10% of the frames have a
trailing space, but other times when I've checked it has been getting on
for 20%. Something obviously adds them.

I know that trailing spaces usually won't be significant, and so can be
stripped off, but surely it is avoidable corruption?

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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51. [aprsspec] RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 09:30:38 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96041-2002.08.28-10.10.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Roger Barker [mailto:roger@peaksys.co.uk]
> Posted At: Wednesday, August 28, 2002 9:24 AM
> Subject: [aprsspec] RE: APRS non-ENGLISH formats
>
> That reminds me of something I've kept meaning to comment on - Does
> anyone know where all the trailing spaces on frames in the
> internet data
> stream come from? Checking today, only about 10% of the frames have a
> trailing space, but other times when I've checked it has been
> getting on
> for 20%. Something obviously adds them.
>
> I know that trailing spaces usually won't be significant, and
> so can be
> stripped off, but surely it is avoidable corruption?

Take a look at the packets. I haven't, but I would venture to guess
that users have put the trailing spaces in the packets (at the end of a
comment, message, etc.). I am not aware of any software that adds
trailing spaces. Doesn't mean it doesn't exist, just that I am not
aware of any software that does this.

javAPRSSrvr does not strip off the trailing space because, as you say,
"trailing spaces usually won't be significant". The key word here is
"usually". It is my firm belief that server software leave the payloads
completely untouched.

The corruption occurs when TNC's and other software arbitrarily strip

trailing spaces off of a packet. javAPRSSrvr does account for this in
the dupe check algorithm, but leaves the payload alone.

Good question :)

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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52. [aprsspec] RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 28 Aug 2002 11:39:48 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96053-2002.08.28-11.20.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Aug 2002, AE5PL Lists wrote:

> > And that is exactly the intent. Bringing in these new completely
> > incompatible FONTS must be in a *new* non compatbile format
> > as well. This
>
> Now we have gone from character sets to fonts. In either case, there
> are literally hundreds of these with many different variations. Trying
> to handle them within APRS will be virtually impossible.

I guess I was sloppy with the terms FONTS and CHARACTER SETS... I am
talking about character sets. Sorry...

> > way current IGates ignore the new format completely and do
> > not let it mess up what we have... Then we upgrade the IGates to
> > "properly"
>
> What do you mean "properly"? It is an important rule for APRS-IS that
> NO software on APRS-IS modify packet payloads. That means that local
> IGates are not to modify payloads in any way when retransmitting them on
> to RF. If you change the payload, you have now changed the packet,
> causing many more potential problems.

I am confused by what you are talking about here. Nothing that I am
talking about has anything to do with "modifying payloads".

> > handle the new non-compatible messages, rather than letting these
> > totally gyberish fonts munge up the existing APRS system.

(I meant character sets)...

> Because you don't understand a language doesn't mean that the message is
> total gibberish. You are trying to dictate a ban on using 8 bit
> characters in messages (what about status text and comment text?) to
> meet your personal preferences.

Nothing personal here at all. And you are missunderstanding the
approach. Let me explain what I mean by gyberish. I dont mind at all
seeing German, Italian, Greek, Spanish or any other message that uses only
a difference in FONTS. THat is just fine with me. What I dont want to
see in the current message format are 8 bit gyberish that includes form
feeds, line feeds and generates hyrogliphics all over the screen that
mess up current systems, and are unreadable by someone even if
he was conversant in that language.

> > By using a new format, we "do-it-right" by introducing a new
> > format for something that is totally incompatible with past practice
> > and
>
> But past practice has been to go ahead and use 8 bit characters anywhere
> where text can be used.

I Fully agree, as long as it does not contain control characters that
produce garbled reesults in standard ASCII.

> > There is no way that I want to have GYBERISH messages and bulletins
> > cluttering up existing MESSAGE lists and traffic pages.
>
> Then put a switch in your software to not display packets with 8 bit
> characters.

Impossible. I can put a switch in what goes into code from this day
forward, but I cannot change how things are displayed on thousands of
copies currently in use and or how it is displayed on a Kenwood...

> > software has the ability to display these graphical fonts, then such
> > end user software is also easily able to take the new format, convert
> > to the new [character set] and then integrate it into the existing
> > message displays as desired, but the on-air formats must *not* be
> > intermingled or we distroy existing systems.
>
> Once again, a message is for communication between two stations. A
> bulletin is for broadcasting to a group something of interest to that
> group. In both cases, interception by non-involved persons should not
> be the overriding factor on forcing them to use a format incompatible
> with APRS-IS.

That is why it is a NEW proposal, to accomodate a NEW requirement. That
is, the transmission of the three character sets of Japanese for example.
When it is adopted as a NEW system for the end users, then the NEW format
will be incorporated into NEW APRS-IS code as well... All of this without
messing up the displays on what exists now and in the transistion...

> While you can monitor everything that goes on in APRS, it
> should not be a mandatory factor that you understand everything.

We agree 100%. But ANYTHING that is monitored must not damage older
displays. That is my approach here. I have no objections to stuffing new
stuff in old formats as long as it does not break existing APRS.   If it
breaks something old, then it must use a NEW format that can be
accomodated into NEW software so that it can be FORWARD compatbile
without being BACKWARDDAMAGING...

Oh by the way, this whole argument may become mute as I think I have just
learned that the Japanese JASCII is 7 bit ASCII compatible and may not be
a problem... THus it can go in existing message formats... which I hope
is the case (as do you)... then we dont need a new format...

Bob
.

 > > 73, >
> Pete Loveall AE5PL
> http://www.ae5pl.net
> mailto:pete@ae5pl.net
>
>
> ---
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>

de WB4APR@amsat.org, Bob

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53. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 28 Aug 2002 11:41:37 -0400 (EDT)

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96054-2002.08.28-11.22.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yes, that is what I meant although I did not do as good of a job at
explaining it as you did...
Thanks
Bob

On Wed, 28 Aug 2002, Roger Bille wrote:

> I think we should go the middle way :)
>
> 1. The APRS Spec should be updated to support 8-bit characters to fully
> support Western/European languages. This infact already works fine today in
> most applications. The spec should also define which characterset and that
> should be ISO-8859-1 (Latin 1) or the new updated ISO-8859-15 that is
> proposed to replace ISO-8859-1. This will support: French, Spanish, Catalan,
> Basque, Portuguese, Italian, Albanian, Rhaeto-Romanic, Dutch, German,
> Danish, Swedish, Norwegian, Finnish, Faroese, Icelandic, Irish, Scottish and
> English. It also support Afrikaans and Swahili.
>
> 2. Add Bob's proposal for non ISO-8859-1(15) character sets. This include
> the mulibyte character sets used in Asia where more than one byte (normally
> 2) define the character or more correctly (I think) a phonetic part.
>
> 73 de sm5nrk/Roger
>
>
> ---
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>

de WB4APR@amsat.org, Bob

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CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
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APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

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54. [aprsspec] RE: APRS non-ENGLISH formats

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Aug 2002 16:44:57 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96055-2002.08.28-11.27.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-96041-2002.08.28-10.10.56--roger#peaksys.co.uk@list
s.tapr.org>, AE5PL Lists <HamLists@ametx.com> writes
[snip]
>
>Take a look at the packets. I haven't, but I would venture to guess
>that users have put the trailing spaces in the packets (at the end of a
>comment, message, etc.).

I ain't that stoopid!   ;-)

When I first noticed it, I had a good look at the packets. In particular
I looked at -

(a) Frames from Ultimeter wx stations.
(b) UI-View beacon frames with the UI-View "tag" on the end.

Because spaces on either of those are quite definitely not added by the
user.

Also, I've used three different telnet clients to collect data, and
connected to several different servers, to try and make sure that the
problem really exists, and isn't being caused by my test system.

If you collect a dump and run a filter on it outputting frames with a
space at the end, you will find things like (sorry about the wrap) -

HB9IBI-1>APU24L,HB9IAC-4*,WIDE,qAS,HB9DQU-10:=4611.75N/00612.43EIInterne
t Gateway {UIV32}

EA5AWF>aprsdMUEA,TRACE7-7,qAS:=3749.18N/00053.32W-Manolo,Box 26,San
Javier c.p.30730 (MU) {UIV23}

W8MAP-1>APRS,W8MAP-4,W8APR*,qAS,w8gps:!!004500C70272009926F5030003A8----
00EF026100000059

W8MAP-1>APRS,W8MAP-4,W8APR*,qAS,w8gps:!!006400B80273009926F4030003A5----
00EF026600000059

A little analysis showed -

(a) If there was a space at the end of one frame from a station, it was
likely there would be a space at the end of all frames from that
station. (See the two frames from W8MAP-1 - both have two spaces on the
end.)

(b) There were some clusters of stations that always had spaces on the
end of their frames. For example, at the time I looked at it, there were
a group of 'SV' stations. However, there weren't any 'G' stations,
suggesting that it wasn't being caused by UI-View IGATEs, which was the
main thing I wanted to check at the time.

It seems likely that it is caused by a particular type of IGATE or
internet server, probably only in certain circumstances. The spaces
aren't in the packets before they go onto the internet, I've managed to
check that out with one or two stations.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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55. [aprsspec] RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 10:46:55 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96056-2002.08.28-11.27.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Wednesday, August 28, 2002 10:41 AM
> Subject: [aprsspec] RE: APRS non-ENGLISH formats
>
> > What do you mean "properly"? It is an important rule for
> APRS-IS that
> > NO software on APRS-IS modify packet payloads. That means
> that local
> > IGates are not to modify payloads in any way when
> retransmitting them on
> > to RF. If you change the payload, you have now changed the packet,
> > causing many more potential problems.
>
> I am confused by what you are talking about here. Nothing that I am
> talking about has anything to do with "modifying payloads".

Then explain what you meant by "properly".

> Nothing personal here at all. And you are missunderstanding the
> approach. Let me explain what I mean by gyberish. I dont mind at all
> seeing German, Italian, Greek, Spanish or any other message
> that uses only
> a difference in FONTS. THat is just fine with me. What I
> dont want to
> see in the current message format are 8 bit gyberish that
> includes form
> feeds, line feeds and generates hyrogliphics all over the screen that

> mess up current systems, and are unreadable by someone even if
> he was conversant in that language.

But German, Italian, Greek, and Spanish use characters that are not in
the 7-bit ASCII family. Form feeds, line feeds, and other control
characters are all less than 0x20 (hex 20). So, a character with the
most significant bit set does not generate these. However, if your
application is improperly stripping the most significant bit from the
payload data, I can see how your application would not handle any 8 bit
data correctly, regardless of packet type.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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56. [aprsspec] RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 10:58:51 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96059-2002.08.28-11.39.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Roger Barker [mailto:roger@peaksys.co.uk]
> Posted At: Wednesday, August 28, 2002 10:48 AM
> Subject: [aprsspec] RE: APRS non-ENGLISH formats
>
> I ain't that stoopid!   ;-)

Never meant to imply you were :)

> When I first noticed it, I had a good look at the packets. In
> particular
> I looked at -
>
> (a) Frames from Ultimeter wx stations.
> (b) UI-View beacon frames with the UI-View "tag" on the end.
>
> Because spaces on either of those are quite definitely not
> added by the
> user.

Ah, but are they added by the programs generating those packets? That
is a possibility too.

> (a) If there was a space at the end of one frame from a
> station, it was
> likely there would be a space at the end of all frames from that
> station. (See the two frames from W8MAP-1 - both have two
> spaces on the
> end.)
>
> (b) There were some clusters of stations that always had spaces on the
> end of their frames. For example, at the time I looked at it,
> there were
> a group of 'SV' stations. However, there weren't any 'G' stations,
> suggesting that it wasn't being caused by UI-View IGATEs,
> which was the
> main thing I wanted to check at the time.
>
> It seems likely that it is caused by a particular type of IGATE or
> internet server, probably only in certain circumstances. The spaces

I think, from your statements, that the software generating the packets
needs to be looked at as well as IGate and server software. It is
possible that a TNC setting might be adding white space or an IGate
might be adding it. I can assure you that javAPRSSrvr is not adding the
white space. javAPRSSrvr does ensure that every line is terminated with
a CR/LF sequence. It may be that some software only handles CR or LF
but not both. However, it is important due to many operating system
differences that all APRS-IS software be able to handle both.

I can't speak for aprsD or AHub. It has been my experience, however,
that AHub strips any trailing spaces from the payloads. Any chance of
identifying some of the IGates using the q construct? Might help to
identify what software they are running.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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57. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 11:04:43 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96061-2002.08.28-11.45.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Wednesday, August 28, 2002 10:42 AM
> Subject: [aprsspec] Re: SV: RE: APRS non-ENGLISH formats
>
> Yes, that is what I meant although I did not do as good of a job at
> explaining it as you did...
> Thanks
> Bob
>
> On Wed, 28 Aug 2002, Roger Bille wrote:
>
> > I think we should go the middle way :)
> >
> > 1. The APRS Spec should be updated to support 8-bit
> characters to fully
> > support Western/European languages. This infact already
> works fine today in
> > most applications. The spec should also define which
> characterset and that
> > should be ISO-8859-1 (Latin 1) or the new updated
> ISO-8859-15 that is
> > proposed to replace ISO-8859-1. This will support: French,
> Spanish, Catalan,
> > Basque, Portuguese, Italian, Albanian, Rhaeto-Romanic,
> Dutch, German,
> > Danish, Swedish, Norwegian, Finnish, Faroese, Icelandic,
> Irish, Scottish and
> > English. It also support Afrikaans and Swahili.
> >
> > 2. Add Bob's proposal for non ISO-8859-1(15) character
> sets. This include
> > the mulibyte character sets used in Asia where more than
> one byte (normally
> > 2) define the character or more correctly (I think) a phonetic part.

We have a problem with double byte characters anyway. Due to the
assumption that data is received and transmitted via command mode on a
TNC, there can't be any double byte characters allowed where one of the
bytes is a control character. This is true regardless of packet type.
For instance, APRS-IS assumes that all packets are terminated with a CR
or LF (or both). If a double byte sequence with one of these characters
occurred in the packet, you can see that packet would be lost/mangled.
I think we need to specify, because of the above assumptions, that
double byte character sets cannot be used.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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58. [aprsspec] SV: RE: APRS non-ENGLISH formats

From: "Roger Bille" <roger.bille@telia.com>
Date: Wed, 28 Aug 2002 18:12:42 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96063-2002.08.28-11.51.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> > Nothing personal here at all. And you are missunderstanding the
> > approach. Let me explain what I mean by gyberish. I dont mind at all
> > seeing German, Italian, Greek, Spanish or any other message
> > that uses only
> > a difference in FONTS. THat is just fine with me. What I
> > dont want to
> > see in the current message format are 8 bit gyberish that
> > includes form
> > feeds, line feeds and generates hyrogliphics all over the screen that
> > mess up current systems, and are unreadable by someone even if
> > he was conversant in that language.
>
> But German, Italian, Greek, and Spanish use characters that are not in
> the 7-bit ASCII family. Form feeds, line feeds, and other control
> characters are all less than 0x20 (hex 20). So, a character with the
> most significant bit set does not generate these. However, if your
> application is improperly stripping the most significant bit from the
> payload data, I can see how your application would not handle any 8 bit
> data correctly, regardless of packet type.

 For clarification. The ASCII table define printable characters as Pete say
from 0x20-0x7f. ISO 8859 define printable characters from 0xA0-0xFF so it
are these we actually are talking about to allow in the payload.

 73 de sm5nrk/Roger

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59. [aprsspec] RE: APRS non-ENGLISH formats

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Aug 2002 17:28:13 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96069-2002.08.28-12.08.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-96059-2002.08.28-11.39.13--roger#peaksys.co.uk@list
s.tapr.org>, AE5PL Lists <HamLists@ametx.com> writes
[snip]
>
>I think, from your statements, that the software generating the packets
>needs to be looked at as well as IGate and server software.

That point was answered in the last paragraph of my previous message
said -

"The spaces aren't in the packets before they go onto the internet, I've
managed to check that out with one or two stations."

> It is
>possible that a TNC setting might be adding white space or an IGate
>might be adding it.

IGATE - definitely yes. (I mentioned that possibility). TNC? Well, I've
used "normal" packet for 20 years, and used just about every type of TNC
going, and I've never seen a problem with added white space.

>I can't speak for aprsD or AHub. It has been my experience, however,
>that AHub strips any trailing spaces from the payloads. Any chance of
>identifying some of the IGates using the q construct? Might help to
>identify what software they are running.

As I said, run a filter outputting packets with a space on the end, and
you'll soon collect yourself a big dump. If you don't I'll be really
interested in why I see the spaces and you don't!

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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60. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 28 Aug 2002 13:27:55 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96078-2002.08.28-13.08.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Aug 2002, AE5PL Lists wrote:

> We have a problem with double byte characters anyway. Due to the
> ....
> occurred in the packet, you can see that packet would be lost/mangled.
> I think we need to specify, because of the above assumptions, that
> double byte character sets cannot be used.

It is the double-byte Japanese that is exactly why I brought this whole
thing up in the first place (though I must not have done a good job of
explaining it).... And that is why I initiall thought we will probably
need a new format to handle such character sets and that it should not be
stuffed into existing MESSAGE format.

It was this initial concern that caused me to suggewst that we might
need a new format to isolate these frames from our existing code.

But I have since learned that the double byte Japanse charcaters that
triggered the initial concern do also use only printable 8 bit bytes and
so my concerns for control-code problems is probably not a problem.. Here
is what I hve learned since my original sugestion:

Each Kanji code use 2 bytes.
The 1st byte is 0x81-0xFC.
The 2nd byte is 0x40-0xFC.

These are all printable ascii codes and therefore do not include any
control codes and so therefore I think can be safely used within the
existing APRS message format.

End of drill unless there are other character sets that will try to use
control codes...

Bob

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61. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Bill Diaz <william.diaz@attbi.com>
Date: Wed, 28 Aug 2002 12:41:38 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96079-2002.08.28-13.22.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob,
  Haven't worked with UniCode, so I don't have a clue. Will the kanji coded
characters cause a problem with Packet lengths, or field lengths?

What will be the effect on code that looks for Message To call, and object
name fields to be nine bytes in length?

Will total packet length increase appreciably? Note that some applications
will reject any packet that is over 250 bytes in length.

Bill KC9XG

On Wednesday, August 28, 2002 12:28, Bob Bruninga [SMTP:bruninga@usna.edu]
wrote:
> On Wed, 28 Aug 2002, AE5PL Lists wrote:
>
SNIP
> It was this initial concern that caused me to suggewst that we might
> need a new format to isolate these frames from our existing code.
>
> But I have since learned that the double byte Japanse charcaters that
> triggered the initial concern do also use only printable 8 bit bytes and
> so my concerns for control-code problems is probably not a problem..
 Here
> is what I hve learned since my original sugestion:
>
> Each Kanji code use 2 bytes.
> The 1st byte is 0x81-0xFC.
> The 2nd byte is 0x40-0xFC.
>
> These are all printable ascii codes and therefore do not include any
> control codes and so therefore I think can be safely used within the
> existing APRS message format.
>
> End of drill unless there are other character sets that will try to use
> control codes...
>
> Bob
>
>
>
>
>
> ---
> You are currently subscribed to aprsspec as: kc9xg@attbi.com
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62. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Aug 2002 19:04:40 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96080-2002.08.28-13.45.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-96079-2002.08.28-13.22.01--roger#peaksys.co.uk@list
s.tapr.org>, Bill Diaz <william.diaz@attbi.com> writes
>Bob,
> Haven't worked with UniCode, so I don't have a clue. Will the kanji coded
>characters cause a problem with Packet lengths, or field lengths?
>
>What will be the effect on code that looks for Message To call, and object
>name fields to be nine bytes in length?

I think the first step in any processing would have to be to take the
pairs of bytes from the AX25 frame and convert them into whatever double
byte character set (DBCS) was being used, then measure field lengths in
characters, not bytes, after you'd done that. Presumably Japanese TNC
firmware handles the packing/unpacking?

>Will total packet length increase appreciably? Note that some applications
>will reject any packet that is over 250 bytes in length.

There would still be a restriction of 256 bytes on information field
length, because that is part of the AX25 spec. (Unless we're talking
internet only.)

I think we really need someone who is experienced with Japanese software
to comment on this.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com

For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

63. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 28 Aug 2002 15:01:05 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96093-2002.08.28-14.41.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Aug 2002, Bill Diaz wrote:

> Bob,
> Haven't worked with UniCode, so I don't have a clue. Will the kanji coded
> characters cause a problem with Packet lengths, or field lengths?

My only concern was that single byte character sets recognize the hard
display limits in APRSdos of 67 bytes (64 in the Kenwood D700) and 45 in
the D7... If it takes 134 double bytes to convey 67 KANJI characters
then that is all right with me. BUT, since a KANJI character conveys
more meaning per character, they dont need nearly as many for the same
amount of message, so it really doesnt matter especially since APRSdos
and the Kenwoods are not going to display them anyway.

So I think that sticking to the 67 byte limit will not be too
restrictive. Ill check with the Japanese...

BOb
>
> What will be the effect on code that looks for Message To call, and object
> name fields to be nine bytes in length?
>
> Will total packet length increase appreciably? Note that some applications
> will reject any packet that is over 250 bytes in length.
>
> Bill KC9XG

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64. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 16:19:50 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96109-2002.08.28-17.01.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Wednesday, August 28, 2002 12:29 PM
> Posted To: APRS Specification
> Conversation: [aprsspec] Re: SV: RE: APRS non-ENGLISH formats
> Subject: [aprsspec] Re: SV: RE: APRS non-ENGLISH formats
>
> But I have since learned that the double byte Japanse charcaters that
> triggered the initial concern do also use only printable 8
> bit bytes and
> so my concerns for control-code problems is probably not a
> problem.. Here
> is what I hve learned since my original sugestion:
>
> Each Kanji code use 2 bytes.
> The 1st byte is 0x81-0xFC.
> The 2nd byte is 0x40-0xFC.
>
> These are all printable ascii codes and therefore do not include any
> control codes and so therefore I think can be safely used within the
> existing APRS message format.
>
> End of drill unless there are other character sets that will
> try to use
> control codes...

I think you hit the nail on the head. Within the limits of AX.25 (256
byte Information fields), as long as control codes are not part of the
character set, all is well (true, some systems impose further barriers
to packet length such as the Kenwood radios and some software). For
people using DBCS in their messages, they need to be aware of the APRS
length restrictions apply total number of bytes, not characters. That
would be something for the authors of software using those character
sets to think about.

Glad this got sorted out. I want to see, like you, APRS used in as many
different environments as possible. The limitation of no control codes,
|, ~, or { in messages is a good one that should be observed in all
packets to maintain as much compatibility as possible.

On to the next problem :) By the way, because of this discussion, I am
updating javAPRS to display all comments and messages in the default
character set of the system it is running on. Should help those
international web pages.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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65. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 28 Aug 2002 22:55:12 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96114-2002.08.28-17.37.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-96109-2002.08.28-17.01.40--roger#peaksys.co.uk@list
s.tapr.org>, AE5PL Lists <HamLists@ametx.com> writes
[snip]
>For
>people using DBCS in their messages, they need to be aware of the APRS
>length restrictions apply total number of bytes, not characters.

Really? I would have thought that all the *APRS* length restrictions, as
opposed to the AX25 restrictions of 256 bytes in a frame information
field, seven bytes to an address, etc, apply to characters. Particularly
since all those little diagrams in the APRS spec have comments like "max
67 chars".

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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66. [aprsspec] SV: SV: RE: APRS non-ENGLISH formats

From: "Roger Bille" <roger.bille@telia.com>
Date: Thu, 29 Aug 2002 00:24:59 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96115-2002.08.28-18.03.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Or go directly to UTF-8 so you do not need to specify which codepage
> is used.

 Good point. The UTF-8 encoding of Unicode will add an little extra load
since each non ASCII character will be coded in >= 2 bytes. I don't know how
well Unicode is supported on the various platform we use, in particular Palm
and PocketPC. ISO 8859 is for sure available. One thing is for sure it is
not supported on Kenwood, 8859 isn't either only part of it and D7 and D700
are not consitent.

73 de sm5nrk/Roger

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67. [aprsspec] new APRS message format

From: James Jefferson <jjeffers@aprsworld.net>
Date: Wed, 28 Aug 2002 17:42:33 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96119-2002.08.28-18.23.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I would like to see a message format that uses an Unicode
(http://www.unicode.org/) message body. For those not familiar with Unicode,
it is 16 bit (2-byte) per character. Java natively supports (uses?) Unicode.
Plain ASCII is easy to encode, and if all you want is to display plain ASCII
then that is easy to.

Unicode can be sent over 8-bit links using UTF-8 encoding. This solves all of
the problems with existing TNC compatability.

Here is what I propose:

1) everything besides the message body be plain 8-bit ASCII
2) message identifier be a | (pipe), or any other single character that has
not yet been used
3) 9 byte addressee, identical limitations to current addressee field
4) address / body seperator be the same as the message identifer
5) variable length, up to 240 bytes. Each unicode character is >= 1 && <= 4
bytes
6) body / sequence number seperator, same as the message identifier
7) 2 byte ASCII sequence designator

Sample message:

KB0THN>APRS:|KB0VYO-10|UTF-8 encoded unicode message|ab

comments?

-Jim KB0THN

PS - one way or another, I'll be happy to add support to aprsworld whatever
this group decides.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

68. [aprsspec] Re: new APRS message format

From: Roger Barker <roger@peaksys.co.uk>
Date: Thu, 29 Aug 2002 00:06:35 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96134-2002.08.28-18.48.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-96119-2002.08.28-18.23.20--roger#peaksys.co.uk@list
s.tapr.org>, James Jefferson <jjeffers@aprsworld.net> writes
[snip]
>
>Sample message:
>
>KB0THN>APRS:|KB0VYO-10|UTF-8 encoded unicode message|ab
>
>comments?

Final comment before I go into read-only mode for this thread - If I was
you, I would wait until you know what encoding/decoding a Japanese TNC
does.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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69. [aprsspec] RE: SV: SV: RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 18:29:06 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96141-2002.08.28-19.09.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

UTF-8 is 8 bit only. It is a subset of Unicode without the DBCS
support.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Roger Bille [mailto:roger.bille@telia.com]
> Posted At: Wednesday, August 28, 2002 5:24 PM
> Subject: [aprsspec] SV: SV: RE: APRS non-ENGLISH formats
>
> Good point. The UTF-8 encoding of Unicode will add an little
> extra load
> since each non ASCII character will be coded in >= 2 bytes. I

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70. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 28 Aug 2002 19:33:38 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96142-2002.08.28-19.14.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Yep, looks like we are on the same page... (except as noted below (grin))

On Wed, 28 Aug 2002, AE5PL Lists wrote:

> people using DBCS in their messages, they need to be aware of the APRS
> length restrictions apply total number of bytes, not characters. That
> would be something for the authors of software using those character
> sets to think about.

I think this is still debatible to some degree and open for discussion.
The 67 character limit imposed in the spec is the DISPLAY length, not
necessarily the BYTE length (or at least that was the origin and intent
of the restriction)... If it takes two bytes to make up a
character, then that only counts as ONE, as far as the size of the
display is concerned. So I would always call it a display limit, and not
a BYTE limit...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

71. [aprsspec] RE: new APRS message format

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 18:35:07 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96145-2002.08.28-19.15.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As has been pointed out by Bob earlier, the need for a special format is
not required. However, full Unicode is not compatible with APRS because
some of its bytes are less than 0x20 (control characters).
Unfortunately, there is no way to tell a TNC in command mode "ignore
these characters because they are Unicode". So, to live within the
confines of our current limitations on APRS and APRS-IS, it makes sense
to say "any byte 0x20-0xff excluding |, ~, and {". The final exclusions
are because many TNC's interpret those characters as commands.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: James Jefferson [mailto:jjeffers@aprsworld.net]
> Posted At: Wednesday, August 28, 2002 5:45 PM
> Subject: [aprsspec] new APRS message format
>
> I would like to see a message format that uses an Unicode
> (http://www.unicode.org/) message body. For those not
> familiar with Unicode,
> it is 16 bit (2-byte) per character. Java natively supports
> (uses?) Unicode.
> Plain ASCII is easy to encode, and if all you want is to
> display plain ASCII
> then that is easy to.

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72. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 28 Aug 2002 18:40:37 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96152-2002.08.28-19.21.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Wednesday, August 28, 2002 6:35 PM
> Subject: [aprsspec] Re: SV: RE: APRS non-ENGLISH formats
>
> On Wed, 28 Aug 2002, AE5PL Lists wrote:
>
> > people using DBCS in their messages, they need to be aware
> of the APRS
> > length restrictions apply total number of bytes, not
> characters. That
> > would be something for the authors of software using those character
> > sets to think about.
>
> I think this is still debatible to some degree and open for
> discussion.
> The 67 character limit imposed in the spec is the DISPLAY length, not
> necessarily the BYTE length (or at least that was the origin
> and intent
> of the restriction)... If it takes two bytes to make up a
> character, then that only counts as ONE, as far as the size of the
> display is concerned. So I would always call it a display
> limit, and not
> a BYTE limit...

Fine with me as long as they stay within the AX.25 spec which specifies
256 octets (bytes) maximum for a packet's information field. Don't know
how other APRS software would handle the extended packet lengths.? I
would also say that, if IGating is to be taken into consideration, then
the third-party format restricts the total payload length to 256-28
bytes or 228 bytes (I think I did my math right :)

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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73. [aprsspec] Re: new APRS message format

From: Joel Maslak <jmaslak@antelope.net>
Date: Wed, 28 Aug 2002 20:33:58 -0600 (MDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96166-2002.08.28-22.14.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Aug 2002, James Jefferson wrote:

> Unicode can be sent over 8-bit links using UTF-8 encoding. This solves all of
> the problems with existing TNC compatability.

Actually, if you have 8-bit clean links, you can send Unicode directly.
UTF-8 does something different.

Unfortunately, although AX-25 should allow it fine, the current
implementations are anything but 8-bit clean. I suspect that you could
crash and otherwise harm 90% of APRS stations by sending 8-bit characters.
I would be the first to applaud a move to 8-bit clean links, as I've seen
plenty of problems with the current "sort of 7-bit" system that is in use
- but I don't see a way of upgrading the existing hardware. And one of
the reasons APRS is so popular is it is a fairly cheap thing to get
involved in. Unfortunately that also means that we sacrifice some
principles in the process.

--
Joel

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74. [aprsspec] Re: new APRS message format

From: James Jefferson <jjeffers@aprsworld.net>
Date: Wed, 28 Aug 2002 21:43:05 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96171-2002.08.28-22.29.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Actually, if you have 8-bit clean links, you can send Unicode directly.
> UTF-8 does something different.

UTF-8 is designed to be interoperable with ASCII directly. IE normal ASCII
characters are encoded as a single byte.

In our application UTF-8 will make sure that no printable and bellow
characters will be changed. Only things with the high bit set will be able to
contain Unicode.

-Jim

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75. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 29 Aug 2002 09:50:10 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96266-2002.08.29-09.31.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 28 Aug 2002, Roger Barker wrote:

> I think we really need someone who is experienced with Japanese software
> to comment on this.

I got the answers...

Kanji is a two-byte printable ascii code and it involves a 3 byte ESC-IN
and an ESC-OUT code so it can be intermingled with plain ASCII... So even
if they took the 67 display limit as a character limit, that still allows
30 KANJI characters..

And as an aside, a common school test in Japan is to have them say
ANYTHING in 20 KANJI characters or less...

So for now, this issue is resolved to my satisfaction... thanks

Bob

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76. [aprsspec] Re: SV: RE: APRS non-ENGLISH formats

From: Jim Tittsler <7J1AJH@OnJapan.net>
Date: Fri, 30 Aug 2002 11:59:36 +0900
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-96389-2002.08.29-22.40.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, Aug 28, 2002 at 01:27:55PM -0400, Bob Bruninga wrote:
> But I have since learned that the double byte Japanse charcaters that
> triggered the initial concern do also use only printable 8 bit bytes and
> so my concerns for control-code problems is probably not a problem.. Here
> is what I hve learned since my original sugestion:
>
> Each Kanji code use 2 bytes.
> The 1st byte is 0x81-0xFC.
> The 2nd byte is 0x40-0xFC.

There are three different encodings in common use for Japanese.
It sounds like you are describing Shift-JIS (most common in the
Microsoft world; I believe the 1st byte is actually between
0x81-0x9f or 0xe0-0xef... so as has been pointed out, the path
needs to be 8-bit clean or they start looking like control
codes).

EUC-JP (most common in the Unix world) is beloved by programmers
since both bytes are in the 0xa1~0xfe range.

ISO-2022-JP fits in 7-bits with escapes to switch sets.

http://web.lfw.org/text/jp.html is a quick reference to
Japanese encoding.

73, Jim 7J1AJH/AI8A Tokyo

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September 2002

Original source file: aprsspec.0209
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0209

1. [aprsspec] Confused..

From: "Paula Dowie" <g8pzt@blueyonder.co.uk>
Date: Tue, 3 Sep 2002 23:06:09 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97114-2002.09.03-17.46.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can anyone please tell me what the "qAS" field means in the following frame
obtained from an internet APRSserver? It is typical of many such frames.

G1GQJ>CQ,TRACE5-5,WIDE7-7,qAS,G0RDI:=5142.02N/00055.08WKCathy - Chinnor,Oxon
{UIV32}

73, Paula
------
g8pzt@blueyonder.co.uk
http://www.pzt.org.uk
Telnet: g8pzt.ath.cx:23 (Kidderminster router:)
Telnet: g8pzt.ath.cx:1448 (APRS server)
Telnet: g8pzt.ath.cx:3600 (Chat server)
Telnet: gb7pzt.dyndns.org:88 (gb7pzt bbs user access)
Telnet gb7pzt.dyndns.org:6300 (gb7pzt bbs forwarding access)
http://gb7pzt.dyndns.org/cgi-bin/menu.pz (GB7PZT web interface)

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2. [aprsspec] Re: Confused..

From: Steve Dimse <k4hg@tapr.org>
Date: Tue, 3 Sep 2002 18:16:09 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97117-2002.09.03-17.56.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 9/3/02 at 11:06 PM g8pzt@blueyonder.co.uk (Paula Dowie) sent:

>Can anyone please tell me what the "qAS" field means in the following frame
>obtained from an internet APRSserver? It is typical of many such frames.
>
see:

http://www.aprs-is.net/q.htm

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3. [aprsspec] Re: Confused..

From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 3 Sep 2002 23:16:09 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97118-2002.09.03-17.57.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-97114-2002.09.03-17.46.52--roger#peaksys.co.uk@list
s.tapr.org>, Paula Dowie <g8pzt@blueyonder.co.uk> writes
>Can anyone please tell me what the "qAS" field means in the following frame
>obtained from an internet APRSserver? It is typical of many such frames.
>
>G1GQJ>CQ,TRACE5-5,WIDE7-7,qAS,G0RDI:=5142.02N/00055.08WKCathy - Chinnor,Oxon
>{UIV32}

See http://www.digitaldune.net/~ahubwest/Q.html

--
Roger Barker, G4IDE - roger@peaksys.co.uk

For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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4. [aprsspec] No longer confused

From: "Paula Dowie" <g8pzt@blueyonder.co.uk>
Date: Sat, 7 Sep 2002 00:05:49 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97473-2002.09.06-18.45.36--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thank you to all who sent me the link to the page about the q construct.

73, Paula
------
g8pzt@blueyonder.co.uk
http://www.pzt.org.uk
Telnet: g8pzt.ath.cx:23 (Kidderminster router:)
Telnet: g8pzt.ath.cx:1448 (APRS server)
Telnet: g8pzt.ath.cx:3600 (Chat server)
Telnet: gb7pzt.dyndns.org:88 (gb7pzt bbs user access)
Telnet gb7pzt.dyndns.org:6300 (gb7pzt bbs forwarding access)
http://gb7pzt.dyndns.org/cgi-bin/menu.pz (GB7PZT web interface)

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5. [aprsspec] Request for comment? Shelter list

From: "Wes Johnston" <kd4rdb@netzero.com>
Date: Sat, 7 Sep 2002 22:15:58 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97609-2002.09.07-21.57.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have written the Sprouls to ask for their help (or any work previously done) for the shelters list.
After about a month and no
response, I have come up with a few things.

Goals:
1.I want to develop a method which is interoperable across APRS and PSK31.
2.A shelter list is simply a collection of data. Alpha and numeric characters to be filled in on a
form.
3.The forms are already in use. Every agency uses different forms, so we need a way to specify a
particular form and numbered
fields
4.All data needs to be human readable - ie compatible with PSK31's character set.
5.Data needs to have the ability to be fragmented into small (80byte or is it 67 byte?) chunks and
reassembled on the other end.
6.PSK data needs a checksum. I suggest the plaintext hexadecimal XOR system used in NMEA data.

Protocol:
Data will be modeled after GPS telemetry. $SL will indicate this is a Shelter List message. Comma
delimited fields. There should
be a header which indicates this is a shelter list formatted message. After the header is the agency's
form number. Next will come
a numeric field indicating the field on the form, then a comma, then the alpha or numeric characters for
 the contents of that field.
These fields will continue repeating until the maximum length for an APRS formatted message is reached.
  In the case of PSK31
formatted data, the "*" character will be appended followed by a NMEA compatible checksum.

In the event all fields do no fit in a single aprs message, additional aprs messages can be sent
following the same format. The
only difference will be that different field numbers will be used.

Note that the fields on the form do not need to be transmitted in any order at all.

There is no need to define the number of fields on a form. The reciepent of the message will know this
since he will be filling out
the form initially by hand (later with a template in a version of APRS) and will know when he has

received all fields.

Example:
Form "TEST1"
The _____ jumped over the _____ . Maximum population for the _____ shelter is ____ . Present population
 is _____.

First, we have to number all the fields.
Form "TEST1"
The __1__ jumped over the __2__ . Maximum population for the __3__ shelter is _4__ . Present population
 is __5__.

Since a template is stored at the receiving end, we only need to send an APRS bulletin.
$SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103

This is decoded on the other end by simply matching fields...
the form is of course, TEST1.txt
The __cow__ jumped over the __moon__ . Maximum population for the __Charleston SC__ shelter is _500__ .
 Present population is
__103__.

Of course,
$SL,TEST1,5,103,1,cow,4,500,3,Charleston SC,2,moon
has the same meaning.

What do you think?

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Re: Request for comment? Shelter list

From: "Wes Johnston" <kd4rdb@netzero.com>
Date: Sun, 8 Sep 2002 10:31:27 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97655-2002.09.08-10.12.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm going to add one thing to the spec.... we need to include a time and date stamp.... the standard
APRS formatted 4digit time with
2 digit date will do fine. This additional field will permit easier matching on the receiving end when,
 for example, a copy of a
form is sent out once an hour. This will permit trending on the RX end by stuffing the data into an
array (or database) in an
orderly fashion indexed by date/time.

$SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103

becomes

$SL,081423z,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
or
$SL,081023/,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103

On the receiving end:
At this point what we need is to have a standardized template format. I would like to suggest seeding a
 text file with "&&x&&"
where "&&" is an escape character unlikey to occur in day to day text, and "x" is the field number. Of
course the file name is the
form name. For a form named "TEST1" there is a file named "TEST1.TXT" at every EOC.

Text file named TEST1.TXT
The &&1&& jumped over the &&2&&. Maximum population for the &&3&& shelter is &&4&&. Present population
is &&5&&.

Wes

----- Original Message -----
From: "Wes Johnston" <kd4rdb@netzero.com>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Saturday, September 07, 2002 10:15 PM
Subject: [aprsspec] Request for comment? Shelter list

> I have written the Sprouls to ask for their help (or any work previously done) for the shelters list.
  After about a month and no

> response, I have come up with a few things.
>
> Goals:
> 1.I want to develop a method which is interoperable across APRS and PSK31.
> 2.A shelter list is simply a collection of data. Alpha and numeric characters to be filled in on a
form.
> 3.The forms are already in use. Every agency uses different forms, so we need a way to specify a
particular form and numbered
> fields
> 4.All data needs to be human readable - ie compatible with PSK31's character set.
> 5.Data needs to have the ability to be fragmented into small (80byte or is it 67 byte?) chunks and
reassembled on the other end.
> 6.PSK data needs a checksum. I suggest the plaintext hexadecimal XOR system used in NMEA data.
>
> Protocol:
> Data will be modeled after GPS telemetry. $SL will indicate this is a Shelter List message. Comma
delimited fields. There
should
> be a header which indicates this is a shelter list formatted message. After the header is the
agency's form number. Next will
come
> a numeric field indicating the field on the form, then a comma, then the alpha or numeric characters
for the contents of that
field.
> These fields will continue repeating until the maximum length for an APRS formatted message is
reached. In the case of PSK31
> formatted data, the "*" character will be appended followed by a NMEA compatible checksum.
>
> In the event all fields do no fit in a single aprs message, additional aprs messages can be sent
following the same format. The
> only difference will be that different field numbers will be used.
>
> Note that the fields on the form do not need to be transmitted in any order at all.
>
> There is no need to define the number of fields on a form. The reciepent of the message will know
this since he will be filling
out
> the form initially by hand (later with a template in a version of APRS) and will know when he has
received all fields.
>
> Example:
> Form "TEST1"
> The _____ jumped over the _____ . Maximum population for the _____ shelter is ____ . Present
population is _____.
>
> First, we have to number all the fields.
> Form "TEST1"
> The __1__ jumped over the __2__ . Maximum population for the __3__ shelter is _4__ . Present
population is __5__.
>
> Since a template is stored at the receiving end, we only need to send an APRS bulletin.
> $SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
>
> This is decoded on the other end by simply matching fields...
> the form is of course, TEST1.txt
> The __cow__ jumped over the __moon__ . Maximum population for the __Charleston SC__ shelter is _500__
 . Present population is
> __103__.
>
> Of course,
> $SL,TEST1,5,103,1,cow,4,500,3,Charleston SC,2,moon
> has the same meaning.
>
> What do you think?
>
>
> ---
> You are currently subscribed to aprsspec as: kd4rdb@netzero.com
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>
>

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Re: Request for comment? Shelter list

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 8 Sep 2002 09:49:48 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97656-2002.09.08-10.30.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Instead of adding a new meaning to the $ data type, why not use the
user-defined data type of { ? Throwing in a new meaning to the $ data
type might break some APRS software. The user-defined data type would
be perfect for this application as you could have special software look
for these packets without potentially breaking other software. Try {SL
for User ID=S (Shelter) and Type=L (List)

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Wes Johnston [mailto:kd4rdb@netzero.com]
> Posted At: Sunday, September 08, 2002 9:32 AM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
> $SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
>
> > Data will be modeled after GPS telemetry. $SL will
> indicate this is a Shelter List message. Comma delimited
> fields. There

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

---

8. [aprsspec] Re: Request for comment? Shelter list

From: "B. Hildebrand" <bhildebrand@earthlink.net>
Date: Sun, 8 Sep 2002 08:30:41 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97671-2002.09.08-11.11.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

For historical interest, here is a file I have dated 9/1997:

Position
@POS,date,utc time,lat,long,power,gain,height,symbol,text
@POS,970627,2103,3401.234,-11720.345,,,,A1,KH2Z %Alert
note that power, gain and height are null

Fixed station Position (date and time = null)
@POS,,,3401.234,-11720.345,100,8,75,A1,High Mountain Digipeater Covering all
of So.Cal.

Alternate Position for moving stations
@TRK,date,time,lat,long,speed,direction,altitude,symbol,text

Message
@MSG,date, utc time,Lat,Long,TO,msg number,symbol,text
@MSG,970627,2103,KH2Z,1,,%Hello world. This is just "brain storm'in"
Short Message with Date and Time null.
@MSG,,,KH2Z,1,A1,%Hello world

Weather
@WX,date,utc time,lat,long,wind speed, direction,gusts,tempurature,rain
fall,precipitation,P,humidity,barometric pressure,symbol,text
@WX,06291845,3401.234,-11720.45,0,0,10,80,0,0,0,38,1012,A9,Davis

(_06291845c000s000g000t000r000p000P000h00b00000Davis)

Short Weather
@WX,06291845,3401.23,-11720.345,8,276,,76
Missing fields are concidered null.

Object
@OBJ,date,utc time,lat,long,speed,direction,obj name,symbol,text
@OBJ,970627,2103,3401.234,-11720.23445,20,330,Andrew,A4,Peak Winds 160 mph

@OBJ,,,3401.234,-11720.234,,,Race Start,Z3,So Cal Marathon

Telemetry
@TEL,date,time,lat,long,number of
fields,field1,field2,field3,...,fieldN,text
@TEL,970628,1311,3401.23,-11720.23,4,35,-24,17,245,Remote Thrust Fault
Seismic Monitor

Map Object
@MO,count,number,Lat,Long,Name,Scale,X1,Y1,X2,Y2,X3,Y3,,,,,,,
Count would be number of sentences in complete record
Number would be which sentence number this is in total record.

Query
@Q,Type,Lat,Long,Range,Call,text
?APRS?
@Q,POS,,,,,
Directed ?APRS? (WB4APR ?APRS?
@Q,POS,,,,WB4APR
Range ?APRS? lat long range
@Q,POS,,lat,long,range,,,
Query Status
@Q,Status,,,,,
@Q,Status,,,,WB4APR,
Query Weather
@Q,WX,,,,WB4ARR,
Query Destination
@Q,Dest,,,,WB4APR,
Query Protocol Format - Returns format of POS sentence
@Q,Protocol,,,,WB4APR,POS

Reply
@R,type,utc date,utc time,lat,long,symbol,text
Respond to a @Q (?APRS?)
@R,POS,,,3401.234,-11720.234,,,

Direction Finding
@DF,date,utc time,lat,long,bearing,sig quality,text
@DF,,,3401.345,-11720.23,273,7,

Warning/Alarms/Alert Maybe this is really an object...
@W,date,utc time,lat,long,call,type,text
@W,970627,2127,,,,Road,%Warning Bridge under water!
An alert with lat/long would specify the location of an alarm situation.
No position data would be a general alarm.

----- Original Message -----
From: "Wes Johnston" <kd4rdb@netzero.com>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Sunday, September 08, 2002 7:31 AM
Subject: [aprsspec] Re: Request for comment? Shelter list

> I'm going to add one thing to the spec.... we need to include a time and
date stamp.... the standard APRS formatted 4digit time with
> 2 digit date will do fine. This additional field will permit easier
matching on the receiving end when, for example, a copy of a
> form is sent out once an hour. This will permit trending on the RX end by
stuffing the data into an array (or database) in an
> orderly fashion indexed by date/time.
>
> $SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
>
> becomes
>
> $SL,081423z,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
> or
> $SL,081023/,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
>
> On the receiving end:
> At this point what we need is to have a standardized template format. I
would like to suggest seeding a text file with "&&x&&"
> where "&&" is an escape character unlikey to occur in day to day text, and
"x" is the field number. Of course the file name is the
> form name. For a form named "TEST1" there is a file named "TEST1.TXT" at
every EOC.

>
> Text file named TEST1.TXT
> The &&1&& jumped over the &&2&&. Maximum population for the &&3&& shelter
is &&4&&. Present population is &&5&&.
>
> Wes
>
>
> ----- Original Message -----
> From: "Wes Johnston" <kd4rdb@netzero.com>
> To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
> Sent: Saturday, September 07, 2002 10:15 PM
> Subject: [aprsspec] Request for comment? Shelter list
>
>
> > I have written the Sprouls to ask for their help (or any work previously
done) for the shelters list. After about a month and no
> > response, I have come up with a few things.
> >
> > Goals:
> > 1.I want to develop a method which is interoperable across APRS and
PSK31.
> > 2.A shelter list is simply a collection of data. Alpha and numeric
characters to be filled in on a form.
> > 3.The forms are already in use. Every agency uses different forms, so
we need a way to specify a particular form and numbered
> > fields
> > 4.All data needs to be human readable - ie compatible with PSK31's
character set.
> > 5.Data needs to have the ability to be fragmented into small (80byte or
is it 67 byte?) chunks and reassembled on the other end.
> > 6.PSK data needs a checksum. I suggest the plaintext hexadecimal XOR
system used in NMEA data.
> >
> > Protocol:
> > Data will be modeled after GPS telemetry. $SL will indicate this is a
Shelter List message. Comma delimited fields. There
> should
> > be a header which indicates this is a shelter list formatted message.
After the header is the agency's form number. Next will
> come
> > a numeric field indicating the field on the form, then a comma, then the
alpha or numeric characters for the contents of that
> field.
> > These fields will continue repeating until the maximum length for an
APRS formatted message is reached. In the case of PSK31
> > formatted data, the "*" character will be appended followed by a NMEA
compatible checksum.
> >
> > In the event all fields do no fit in a single aprs message, additional
aprs messages can be sent following the same format. The
> > only difference will be that different field numbers will be used.
> >
> > Note that the fields on the form do not need to be transmitted in any
order at all.
> >
> > There is no need to define the number of fields on a form. The
reciepent of the message will know this since he will be filling
> out
> > the form initially by hand (later with a template in a version of APRS)
and will know when he has received all fields.
> >
> > Example:
> > Form "TEST1"
> > The _____ jumped over the _____ . Maximum population for the _____
shelter is ____ . Present population is _____.
> >
> > First, we have to number all the fields.
> > Form "TEST1"
> > The __1__ jumped over the __2__ . Maximum population for the __3__
shelter is _4__ . Present population is __5__.
> >
> > Since a template is stored at the receiving end, we only need to send an
APRS bulletin.
> > $SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
> >
> > This is decoded on the other end by simply matching fields...
> > the form is of course, TEST1.txt
> > The __cow__ jumped over the __moon__ . Maximum population for the

__Charleston SC__ shelter is _500__ . Present population is
> > __103__.
> >
> > Of course,
> > $SL,TEST1,5,103,1,cow,4,500,3,Charleston SC,2,moon
> > has the same meaning.
> >
> > What do you think?
> >
> >
> > ---
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> > To unsubscribe send a blank email to
leave-aprsspec-11589P@lists.tapr.org
> > Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
> >
> >
>
>
> ---
> You are currently subscribed to aprsspec as: bhildebrand@earthlink.net
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

9. [aprsspec] Re: Request for comment? Shelter list

From: "Wes Johnston" <kd4rdb@netzero.com>
Date: Sun, 8 Sep 2002 12:28:41 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97680-2002.09.08-12.08.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Would this data type {SL be entered in the text part of an aprs message? The reason I ask is that I'd like this to be implemented
relatively quickly and since all versions of aprs have a way to enter messages.....implementation time is 0.

Wes
----- Original Message -----
From: "AE5PL Lists" <HamLists@ametx.com>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Sunday, September 08, 2002 10:49 AM
Subject: [aprsspec] Re: Request for comment? Shelter list

Instead of adding a new meaning to the $ data type, why not use the
user-defined data type of { ? Throwing in a new meaning to the $ data
type might break some APRS software. The user-defined data type would
be perfect for this application as you could have special software look
for these packets without potentially breaking other software. Try {SL
for User ID=S (Shelter) and Type=L (List)

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Wes Johnston [mailto:kd4rdb@netzero.com]
> Posted At: Sunday, September 08, 2002 9:32 AM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
> $SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
>
> > Data will be modeled after GPS telemetry. $SL will
> indicate this is a Shelter List message. Comma delimited
> fields. There

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Re: Request for comment? Shelter list

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 8 Sep 2002 11:38:39 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97682-2002.09.08-12.19.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

No. This has nothing to do with messaging. You can do anything you
want with message text. This has to do with packet data types. My
understanding was that you were trying to use the $ data type for this
application. If you are using $SL in the message, then have at it.
But, if you are trying to use the $ as a data type for the packets, I
recommend using the { data type since that is what the user-defined data
type is meant to be used for, not the $ data type.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Wes Johnston [mailto:kd4rdb@netzero.com]
> Posted At: Sunday, September 08, 2002 11:29 AM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
> Would this data type {SL be entered in the text part of an
> aprs message? The reason I ask is that I'd like this to be
> implemented
> relatively quickly and since all versions of aprs have a way
> to enter messages.....implementation time is 0.
>
> Wes
> ----- Original Message -----
> From: "AE5PL Lists" <HamLists@ametx.com>
> To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
> Sent: Sunday, September 08, 2002 10:49 AM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
>
> Instead of adding a new meaning to the $ data type, why not use the
> user-defined data type of { ? Throwing in a new meaning to the $ data
> type might break some APRS software. The user-defined data type would
> be perfect for this application as you could have special
> software look
> for these packets without potentially breaking other
> software. Try {SL
> for User ID=S (Shelter) and Type=L (List)
>
> 73,
>
> Pete Loveall AE5PL
> http://www.ae5pl.net
> mailto:pete@ae5pl.net
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

11. [aprsspec] Re: Request for comment? Shelter list

From: "Wes Johnston" <kd4rdb@netzero.com>
Date: Sun, 8 Sep 2002 12:57:15 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97683-2002.09.08-12.38.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I see... well until the authors include this as a message type (wouldn't it be cool to have the form
displayed with the blanks ready

to be filled in by tabbing between fields?) in your favorite aprs program, I don't see any reason not to
 use your suggestion of {SL
as the identifyer for a shelter list formatted message.

Thanks for your input!! I'm off and running!
Wes

----- Original Message -----
From: "AE5PL Lists" <HamLists@ametx.com>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Sunday, September 08, 2002 12:38 PM
Subject: [aprsspec] Re: Request for comment? Shelter list

No. This has nothing to do with messaging. You can do anything you
want with message text. This has to do with packet data types. My
understanding was that you were trying to use the $ data type for this
application. If you are using $SL in the message, then have at it.
But, if you are trying to use the $ as a data type for the packets, I
recommend using the { data type since that is what the user-defined data
type is meant to be used for, not the $ data type.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----
> From: Wes Johnston [mailto:kd4rdb@netzero.com]
> Posted At: Sunday, September 08, 2002 11:29 AM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
> Would this data type {SL be entered in the text part of an
> aprs message? The reason I ask is that I'd like this to be
> implemented
> relatively quickly and since all versions of aprs have a way
> to enter messages.....implementation time is 0.
>
> Wes
> ----- Original Message -----
> From: "AE5PL Lists" <HamLists@ametx.com>
> To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
> Sent: Sunday, September 08, 2002 10:49 AM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
>
> Instead of adding a new meaning to the $ data type, why not use the
> user-defined data type of { ? Throwing in a new meaning to the $ data
> type might break some APRS software. The user-defined data type would
> be perfect for this application as you could have special
> software look
> for these packets without potentially breaking other
> software. Try {SL
> for User ID=S (Shelter) and Type=L (List)
>
> 73,
>
> Pete Loveall AE5PL
> http://www.ae5pl.net
> mailto:pete@ae5pl.net
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Sep 2002 16:12:22 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97695-2002.09.08-15.53.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Sep 2002, AE5PL Lists wrote:

> Instead of adding a new meaning to the $ data type, why not use the
> user-defined data type of { ? Throwing in a new meaning to the $ data
> type might break some APRS software. The user-defined data type would
> be perfect for this application as you could have special software look
> for these packets without potentially breaking other software. Try {SL
> for User ID=S (Shelter) and Type=L (List)

I agree. But actually, there is already a SHELTERS data identifier, and
since in the past 6 years, no one has used it, I would think it woiuld
be OK to define it. Go back and look at the original APRS paper in 1992
and identifying the RESOIURCES at every station was actually one of the
more important parts of APRS back then...

Bob
> > 73, > > Pete Loveall AE5PL
> http://www.ae5pl.net
> mailto:pete@ae5pl.net
>
> > -----Original Message-----
> > From: Wes Johnston [mailto:kd4rdb@netzero.com]
> > Posted At: Sunday, September 08, 2002 9:32 AM
> > Subject: [aprsspec] Re: Request for comment? Shelter list
> >
> > $SL,TEST1,1,cow,2,moon,3,Charleston SC,4,500,5,103
> >
> > > Data will be modeled after GPS telemetry. $SL will
> > indicate this is a Shelter List message. Comma delimited
> > fields. There
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

13. [aprsspec] Re: Request for comment? Shelter list

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 8 Sep 2002 15:55:23 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97699-2002.09.08-16.36.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Since I am basically lazy and don't want to spend my afternoon trying to
find this paper you talk about, how about telling us what is a
"shelters" data type, what is its format, and why it never made it to
the spec.

Thanks.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

> -----Original Message-----

> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Posted At: Sunday, September 08, 2002 3:14 PM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
> I agree. But actually, there is already a SHELTERS data
> identifier, and
> since in the past 6 years, no one has used it, I would think it woiuld
> be OK to define it. Go back and look at the original APRS
> paper in 1992
> and identifying the RESOIURCES at every station was actually
> one of the
> more important parts of APRS back then...

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

14. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 8 Sep 2002 19:51:51 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97721-2002.09.08-19.32.51--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Sep 2002, AE5PL Lists wrote:

> Since I am basically lazy and don't want to spend my afternoon trying to
> find this paper you talk about, how about telling us what is a
> "shelters" data type, what is its format, and why it never made it to
> the spec.

The data type is a "+" and that is all that has been defined. The
Sprouls were going to do it. So I abandoned what I had begun...

My idea was the first letter is the +,
The second letter is a TABLE character that defines what "table" is
represented by the remaining data in the line.
Then the remaining data is a series of fields representing what is on that
table.

One table might be the list of RESOURCES at a shelter
another might be the FREQS and BANDS of operation,
another might be the mateirals at the medical tent.
etc...

bob

> > -----Original Message-----
> > From: Bob Bruninga [mailto:bruninga@usna.edu]
> > Posted At: Sunday, September 08, 2002 3:14 PM
> > Subject: [aprsspec] Re: Request for comment? Shelter list
> >
> > I agree. But actually, there is already a SHELTERS data
> > identifier, and
> > since in the past 6 years, no one has used it, I would think it woiuld
> > be OK to define it. Go back and look at the original APRS
> > paper in 1992
> > and identifying the RESOIURCES at every station was actually
> > one of the
> > more important parts of APRS back then...
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

15. [aprsspec] Re: Request for comment? Shelter list

From: "Wes Johnston" <kd4rdb@netzero.com>
Date: Sun, 8 Sep 2002 21:07:51 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97734-2002.09.08-20.48.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ok, I found it in the spec... just one reference... "the + character reserved as shelters list."
Doesn't matter to me... {SL or +SL
... let's just settle on something. The sprouls asked for beta testers over a year ago and I
volunteered, never heard a word back
from them. Let's get this thing rolling. Red Cross and hospitals here are asking for this like crazy
b/c 9/11 and hurricane
season.

Wes

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Sunday, September 08, 2002 7:51 PM
Subject: [aprsspec] Re: Request for comment? Shelter list

> On Sun, 8 Sep 2002, AE5PL Lists wrote:
>
> > Since I am basically lazy and don't want to spend my afternoon trying to
> > find this paper you talk about, how about telling us what is a
> > "shelters" data type, what is its format, and why it never made it to
> > the spec.
>
> The data type is a "+" and that is all that has been defined. The
> Sprouls were going to do it. So I abandoned what I had begun...
>
> My idea was the first letter is the +,
> The second letter is a TABLE character that defines what "table" is
> represented by the remaining data in the line.
> Then the remaining data is a series of fields representing what is on that
> table.
>
> One table might be the list of RESOURCES at a shelter
> another might be the FREQS and BANDS of operation,
> another might be the mateirals at the medical tent.
> etc...
>
> bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

16. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 09:19:38 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97791-2002.09.09-09.00.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sun, 8 Sep 2002, Wes Johnston wrote:

> Ok, I found it in the spec... just one reference... "the + character
> reserved as shelters list." Doesn't matter to me... {SL or +SL ...
> let's just settle on something. Let's
> get this thing rolling. Red Cross and hospitals here are asking for
> this like crazy b/c 9/11 and hurricane season.

OK, lets do it. If I can summarize what you proposed:

```
SHELTER FORMAT:     +FORM,N1,D1,N2,D2,Nn,Dn...

WHere:
 "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
 "FORM" is a variable length FILENAME (with assumed extension .FRM
 "N1,D1" are ordered pairs of numbers with the first being the
         Nth FIELD and the second being a STRING value for that field.
 LENGTH. There is a maximum packet length of bytes of 128 bytes
         starting with the "+" byte.

Thats it.  Only question is whether we agree witht the .FRM file
extension.  Wes proposed a .TXT extension, but there are just so many .TXT
files in our systems, I would prefer a unique recognizable extension
that makes it easy to find these "forms".  But does this raise issues with
Bill-Gate's TEXT EDITORS that these days have to have a .TXT extensino to
work?  Doesnt bother me, since I still just use EDIT.COM for mos of my
editing with aoccassional use of WORDPAD if I have to use a Winders
machine...

Bob


---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

17. [aprsspec] Re: Request for comment? Shelter list

```
From: tvsjr <tvsjr@sprynet.com>
Date: Mon, 09 Sep 2002 08:29:39 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97794-2002.09.09-09.08.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
.FRM files are also used in Visual Studio to indicate form files, as well
as a number of other software packages. FRM is a fairly "controversial"
extension, as many pieces of software want to register to it. Maybe AFR for
APRS Form or something similar? If you're going to do file extensions, pick
a one-character prefix and then choose a meaningful 2-character suffix. You
can then associate those extensions with Notepad, and not have to worry
(probably) about colliding with other programs.

Terry

At 09:19 AM 09/09/2002 -0400, Bob Bruninga wrote:
>On Sun, 8 Sep 2002, Wes Johnston wrote:
>
> > Ok, I found it in the spec... just one reference... "the + character
> > reserved as shelters list."  Doesn't matter to me... {SL or +SL ...
> > let's just settle on something.  Let's
> > get this thing rolling.  Red Cross and hospitals here are asking for
> > this like crazy b/c 9/11 and hurricane season.
>
>OK, lets do it.  If I can summarize what you proposed:
>
>SHELTER FORMAT:     +FORM,N1,D1,N2,D2,Nn,Dn...
>
>WHere:
>  "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
>  "FORM" is a variable length FILENAME (with assumed extension .FRM
>  "N1,D1" are ordered pairs of numbers with the first being the
>          Nth FIELD and the second being a STRING value for that field.
>  LENGTH. There is a maximum packet length of bytes of 128 bytes
>          starting with the "+" byte.
>
>Thats it.  Only question is whether we agree witht the .FRM file
>extension.  Wes proposed a .TXT extension, but there are just so many .TXT
>files in our systems, I would prefer a unique recognizable extension
>that makes it easy to find these "forms".  But does this raise issues with
>Bill-Gate's TEXT EDITORS that these days have to have a .TXT extensino to
>work?  Doesnt bother me, since I still just use EDIT.COM for mos of my
>editing with aoccassional use of WORDPAD if I have to use a Winders
>machine...
>
>Bob
>
>
>---
```

>You are currently subscribed to aprsspec as: tvsjr@sprynet.com
>To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
>Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

18. [aprsspec] Re: Request for comment? Shelter list

From: James Jefferson <jjeffers@aprsworld.net>
Date: Mon, 9 Sep 2002 08:37:48 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97797-2002.09.09-09.17.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Extension? Why does the file need an extension? I have spent any appreciable
time with DOS, so I don't know. If you do need an extension, don't make it
assumed to be anything. Put the whole filename in the message.

-Jim KB0THN

On Monday 09 September 2002 08:29, tvsjr wrote:
> .FRM files are also used in Visual Studio to indicate form files, as well
> as a number of other software packages. FRM is a fairly "controversial"
> extension, as many pieces of software want to register to it. Maybe AFR for
> APRS Form or something similar? If you're going to do file extensions, pick
> a one-character prefix and then choose a meaningful 2-character suffix. You
> can then associate those extensions with Notepad, and not have to worry
> (probably) about colliding with other programs.
>

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19. [aprsspec] Re: Request for comment? Shelter list

From: "B. Hildebrand" <bhildebrand@earthlink.net>
Date: Mon, 9 Sep 2002 06:43:27 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97799-2002.09.09-09.24.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I think TXT if just fine. But, the "+" packet construct is not ideal. The
APRS-IS does not understand it. I would propose an extension to the Message
format:

KH2Z>APRS,WIDE::WB4APR   :F:FormName,field1,field2,field3,...{MM}AA

We should allow for messages greater then 67 characters.

Brent KH2Z

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Monday, September 09, 2002 6:19 AM
Subject: [aprsspec] Re: Request for comment? Shelter list

> On Sun, 8 Sep 2002, Wes Johnston wrote:
>
> > Ok, I found it in the spec... just one reference... "the + character
> > reserved as shelters list." Doesn't matter to me... {SL or +SL ...
> > let's just settle on something. Let's
> > get this thing rolling. Red Cross and hospitals here are asking for
> > this like crazy b/c 9/11 and hurricane season.
>
> OK, lets do it. If I can summarize what you proposed:
>
> SHELTER FORMAT: +FORM,N1,D1,N2,D2,Nn,Dn...

>
> WHere:
> "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> "FORM" is a variable length FILENAME (with assumed extension .FRM
> "N1,D1" are ordered pairs of numbers with the first being the
>   Nth FIELD and the second being a STRING value for that field.
> LENGTH. There is a maximum packet length of bytes of 128 bytes
>   starting with the "+" byte.
>
> Thats it. Only question is whether we agree witht the .FRM file
> extension. Wes proposed a .TXT extension, but there are just so many .TXT
> files in our systems, I would prefer a unique recognizable extension
> that makes it easy to find these "forms". But does this raise issues with
> Bill-Gate's TEXT EDITORS that these days have to have a .TXT extensino to
> work? Doesnt bother me, since I still just use EDIT.COM for mos of my
> editing with aoccassional use of WORDPAD if I have to use a Winders
> machine...
>
> Bob
>
>
> ---
> You are currently subscribed to aprsspec as: bhildebrand@earthlink.net
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

20. [aprsspec] Re: Request for comment? Shelter list

From: "wes johnston" <wes@johnston.net>
Date: Mon, 9 Sep 2002 09:46:34 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97803-2002.09.09-09.29.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Brent made a suggestion to me off line this morning....
SHELTER FORMAT: +FORM,DDHHMM[/|z],D1,D2,Dn...
To which I suggested
SHELTER FORMAT: +FORM,DDHHMM[/|z]Nx,D,D,D...

This allows for easy indexing of forms which must be spread over multiple
packets. I feel it is very important to be able to chain packets together
if there is more information than will fit in one packet. Brent's complaint
was that the n1,d1,n2,d2 format was redundant. Also, let's not forget the
TIME and DATE so we can keep shelter lists sent at different times indexed.

Can we get space on TAPR for these forms?

Wes

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
> OK, lets do it. If I can summarize what you proposed:
>
> SHELTER FORMAT: +FORM,N1,D1,N2,D2,Nn,Dn...
>
> WHere:
> "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> "FORM" is a variable length FILENAME (with assumed extension .FRM
> "N1,D1" are ordered pairs of numbers with the first being the
>   Nth FIELD and the second being a STRING value for that field.
> LENGTH. There is a maximum packet length of bytes of 128 bytes
>   starting with the "+" byte.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

21. [aprsspec] Re: Request for comment? Shelter list

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Mon, 9 Sep 2002 09:08:41 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97805-2002.09.09-09.49.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: B. Hildebrand [mailto:bhildebrand@earthlink.net]
> Posted At: Monday, September 09, 2002 8:44 AM
> Subject: [aprsspec] Re: Request for comment? Shelter list
>
> I think TXT if just fine. But, the "+" packet construct is
> not ideal. The
> APRS-IS does not understand it. I would propose an extension
> to the Message
> format:

APRS-IS will pass the + packets from RF to the Internet. However, there
will be no special handling for those packets as there is for messages
(gating back to RF more difficult). However, this might be ok as this
information is really only for local area use anyway (at least that is
my understanding). Also, there is no acking so these packets might get
collided with. Again, this might be well within what is desired.

I agree that if the desire is to use this format for messaging, then the
message data type should be used and the format of the message should be
"agreed upon" similar to the NTS message format.

Bob, thanks for pointing out the + data type. Definitely a good one for
showing resources in a unicast environment.

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

22. [aprsspec] Re: Request for comment? Shelter list

From: "wes johnston" <wes@johnston.net>
Date: Mon, 9 Sep 2002 10:39:48 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97812-2002.09.09-10.22.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here's another issue.. we are using the comma to separate fields. That is
the standard for NMEA data and other types as well... however, some names
such as CHARLESTON, SC and some numbers such as $9,999.99 have commas in
them. I'd like to propose we copy what CSV files do. If you have a field
which has a comma in it, we need to surround that field with double quotes.

CHARLESTON, SC = "CHARLESTON, SC"
$9,999.99 = "$9,999.99"

When a user enters a message, if he uses the double quote character, we need
to strip it out.

Wes

----- Original Message -----
> Brent made a suggestion to me off line this morning....
> SHELTER FORMAT: +FORM,DDHHMM[/|z],D1,D2,Dn...
> To which I suggested
> SHELTER FORMAT: +FORM,DDHHMM[/|z]Nx,D,D,D...
>
> This allows for easy indexing of forms which must be spread over multiple
> packets. I feel it is very important to be able to chain packets together
> if there is more information than will fit in one packet. Brent's
complaint
> was that the n1,d1,n2,d2 format was redundant. Also, let's not forget the
> TIME and DATE so we can keep shelter lists sent at different times
indexed.
> Wes
> From: "Bob Bruninga" <bruninga@usna.edu>
> > OK, lets do it. If I can summarize what you proposed:

> > SHELTER FORMAT: +FORM,N1,D1,N2,D2,Nn,Dn...
> >
> > WHere:
> > "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> > "FORM" is a variable length FILENAME (with assumed extension .FRM
> > "N1,D1" are ordered pairs of numbers with the first being the
> >   Nth FIELD and the second being a STRING value for that field.
> > LENGTH. There is a maximum packet length of bytes of 128 bytes
> >   starting with the "+" byte.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

23. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 13:36:05 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97825-2002.09.09-13.17.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 9 Sep 2002, Bob Bruninga wrote:

> SHELTER FORMAT: +FORM,N1,D1,N2,D2,Nn,Dn...
>
> WHere:
> "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> "FORM" is a variable length FILENAME (with assumed extension .FRM

OOPS, and the file name is limited to 8 bytes or less (plus extension)...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

24. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 13:38:27 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97826-2002.09.09-13.19.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

OOPS, We need to add a SERIAL number so that we konw WHICH particular
copy of a given form we are dealing with. For example, My form is number
123456, and any UPDATES to that form will always include that serial
number.

 On Mon, 9 Sep 2002, Bob Bruninga wrote:

> SHELTER FORMAT: +FORM,NNNN,N1,D1,N2,D2,Nn,Dn...
>
> WHere:
> "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> "FORM" is a variable length FILENAME (with assumed extension .FRM
> "NNNN" is the NNNNth serial number for that particular copy
> "N1,D1" are ordered pairs of numbers with the first being the
>   Nth FIELD and the second being a STRING value for that field.
> LENGTH. There is a maximum packet length of bytes of 128 bytes
>   starting with the "+" byte.
>
> Thats it. Only question is whether we agree witht the .FRM file
> extension. Wes proposed a .TXT extension, but there are just so many .TXT
> files in our systems, I would prefer a unique recognizable extension
> that makes it easy to find these "forms". But does this raise issues with
> Bill-Gate's TEXT EDITORS that these days have to have a .TXT extensino to
> work? Doesnt bother me, since I still just use EDIT.COM for mos of my
> editing with aoccassional use of WORDPAD if I have to use a Winders
> machine...
>
> Bob
>

>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

25. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 13:46:55 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97827-2002.09.09-13.28.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 9 Sep 2002, B. Hildebrand wrote:

> I think TXT if just fine. But, the "+" packet construct is not ideal. The
> APRS-IS does not understand it. I would propose an extension to the Message
> format:
>
> KH2Z>APRS,WIDE::WB4APR   :F:FormName,field1,field2,field3,...{MM}AA
>
> We should allow for messages greater then 67 characters.

Yes, that is possible, but my thoughts are...

1) I dont like TXT, because I want to be able to say sort a directory by
extension and be able to quickly be able to identify all the files of the
type for our FORMS and be able to manage them with wildcards. Making
them .TXT files gets them lost among all the other bazialions of other
TXT files...

2) The APRS-IS is compatible with the + type construct, because the
APRS-IS is supposed to be transpernent to all packets. It should inject a
"+" type character without any modification.

3) No need to have the message overhead and limitations to apply to this
new construct especially since we have had the + field reserved for
shelters all along...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

26. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 13:54:45 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Wes Johnston <kd4rdb@netzero.com>,
        APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97829-2002.09.09-13.35.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 9 Sep 2002, wes johnston wrote:

> Brent made a suggestion to me off line this morning....
> SHELTER FORMAT: +FORM,DDHHMM[/|z],D1,D2,Dn...
> To which I suggested
> SHELTER FORMAT: +FORM,DDHHMM[/|z]Nx,D,D,D...

>
> This allows for easy indexing of forms which must be spread over multiple
> packets. I feel it is very important to be able to chain packets together
> if there is more information than will fit in one packet.

Agree completely with the addition of the DATE/TIME (and a SERIAL number
as I noted before).

> Brent's complaint
> was that the n1,d1,n2,d2 format was redundant.

Not at all.   Most forms are very sparse and most times you only fill in a
small number of fields. Also later you will want to send UPDATES to
various fields on the forms. It is better to send the field number and
then the data in order to keep the overall packet size smaller.

Of course this all depends on assumptions:
1) Forms are usually sparse and not all fields are usually used
2) Frequently only a few numbers on a form change and those need to be
   updated efficiently.

If these assumptions are not correct, then I agree that numbering every
field adds overhead, but I think the assumptions are more correct than
not...

> Also, let's not forget the
> TIME and DATE so we can keep shelter lists sent at different times indexed.

The serial number is for indexing... Not the date/time stamp. THus only
the serial number is unique. If a new packet contains a matching serial
number, then it is "replacement" data and the new date/time of the form is
the date/time of the most recent update.

Bob
>
> ----- Original Message -----
> From: "Bob Bruninga" <bruninga@usna.edu>
> > OK, lets do it. If I can summarize what you proposed:
> >
> > SHELTER FORMAT: +FORM,N1,D1,N2,D2,Nn,Dn...
> >
> > WHere:
> > "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> > "FORM" is a variable length FILENAME (with assumed extension .FRM
> > "N1,D1" are ordered pairs of numbers with the first being the
> >   Nth FIELD and the second being a STRING value for that field.
> > LENGTH. There is a maximum packet length of bytes of 128 bytes
> >   starting with the "+" byte.
>
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html

---
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

27. [aprsspec] Re: Request for comment? Shelter list

From: "B. Hildebrand" <bhildebrand@earthlink.net>
Date: Mon, 9 Sep 2002 10:58:38 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97830-2002.09.09-13.39.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

1) TXT - you could of course create a directory for forms.
2) APRS-IS transparency.   That is not what I'm talking about. The "+"
construct as defined, is not a directed packet. A Message packet is only

directed packet that traverses the APRS-IS, RF>Internet>RF or Internet>RF.
3) Using messages does add overhead, but that overhead is used to help
(help) insure packet delivery. And group names can be used if desired.

Brent

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Monday, September 09, 2002 10:46 AM
Subject: [aprsspec] Re: Request for comment? Shelter list

> On Mon, 9 Sep 2002, B. Hildebrand wrote:
>
> > I think TXT if just fine. But, the "+" packet construct is not ideal.
The
> > APRS-IS does not understand it. I would propose an extension to the
Message
> > format:
> >
> > KH2Z>APRS,WIDE::WB4APR   :F:FormName,field1,field2,field3,...{MM}AA
> >
> > We should allow for messages greater then 67 characters.
>
> Yes, that is possible, but my thoughts are...
>
> 1) I dont like TXT, because I want to be able to say sort a directory by
> extension and be able to quickly be able to identify all the files of the
> type for our FORMS and be able to manage them with wildcards. Making
> them .TXT files gets them lost among all the other bazialions of other
> TXT files...
>
> 2) The APRS-IS is compatible with the + type construct, because the
> APRS-IS is supposed to be transpernent to all packets. It should inject a
> "+" type character without any modification.
>
> 3) No need to have the message overhead and limitations to apply to this
> new construct especially since we have had the + field reserved for
> shelters all along...
>
> Bob
>
>
> ---
> You are currently subscribed to aprsspec as: bhildebrand@earthlink.net
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

28. [aprsspec] Re: Request for comment? Shelter list

From: "wes johnston" <wes@johnston.net>
Date: Mon, 9 Sep 2002 13:56:41 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97831-2002.09.09-13.39.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Suffice it to say that each agency involved already has a way of numbering
their forms and their revision levels. When we move in to help them, we
need to make sure we are as "transpearant" as possible. I know that DOS
restricts us to 8.3 filenames, but windows, linux and mac do not. I don't
care much for 8.3 naming of forms b/c some agencies may have a form name
which is longer than that (esp when you start adding revision levels).
Since these lists will be sent locally, and we try to make all offices of an
agency interoperatable, one could assume that either 1)every PC in every
shelter would run the same version of aprs software (everyone either uses >8
file names or not), 2) that issues of naming a file so that the lowest
common denominator would work would be handled locally, and have no place in
the spec. I know someone has to set a limit b/c so many languages require
declaration of variables, but it shouldn't be 8 characters. How about 32?

No disrespect indended, but would it be possible to generate a table in APRS
dos to cross referance the possible long file name to an 8.3 name?

Wes
----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Monday, September 09, 2002 12:38 PM
Subject: [aprsspec] Re: Request for comment? Shelter list

> OOPS, We need to add a SERIAL number so that we konw WHICH particular
> copy of a given form we are dealing with. For example, My form is number
> 123456, and any UPDATES to that form will always include that serial
> number.
>
> On Mon, 9 Sep 2002, Bob Bruninga wrote:
>
> > SHELTER FORMAT: +FORM,NNNN,N1,D1,N2,D2,Nn,Dn...
> >
> > WHere:
> > "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> > "FORM" is a variable length FILENAME (with assumed extension .FRM
> > "NNNN" is the NNNNth serial number for that particular copy
> > "N1,D1" are ordered pairs of numbers with the first being the
> >   Nth FIELD and the second being a STRING value for that field.
> > LENGTH. There is a maximum packet length of bytes of 128 bytes
> >   starting with the "+" byte.
> >
> > Thats it. Only question is whether we agree witht the .FRM file
> > extension. Wes proposed a .TXT extension, but there are just so many
.TXT
> > files in our systems, I would prefer a unique recognizable extension
> > that makes it easy to find these "forms". But does this raise issues
with
> > Bill-Gate's TEXT EDITORS that these days have to have a .TXT extensino
to
> > work? Doesnt bother me, since I still just use EDIT.COM for mos of my
> > editing with aoccassional use of WORDPAD if I have to use a Winders
> > machine...
> >
> > Bob
> >
> >
> > ---
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leave-aprsspec-11589P@lists.tapr.org
> > Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
> >
>
> de WB4APR@amsat.org, Bob
>
> PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
> ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
> CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
> APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
> APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
> MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html
>
>
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>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

29. [aprsspec] Re: Request for comment? Shelter list

From: "B. Hildebrand" <bhildebrand@earthlink.net>
Date: Mon, 9 Sep 2002 11:01:06 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>

Cc: "Wes Johnston" <kd4rdb@netzero.com>,
        "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97832-2002.09.09-13.42.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In respect to APRS, forms need to be short. Sparse forms just require a
blank field in the proper count.

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "Wes Johnston" <kd4rdb@netzero.com>; "APRS Spec Discussion List"
<aprsspec@lists.tapr.org>
Sent: Monday, September 09, 2002 10:54 AM
Subject: [aprsspec] Re: Request for comment? Shelter list

> On Mon, 9 Sep 2002, wes johnston wrote:
>
> > Brent made a suggestion to me off line this morning....
> > SHELTER FORMAT: +FORM,DDHHMM[/|z],D1,D2,Dn...
> > To which I suggested
> > SHELTER FORMAT: +FORM,DDHHMM[/|z]Nx,D,D,D...
> >
> > This allows for easy indexing of forms which must be spread over
multiple
> > packets. I feel it is very important to be able to chain packets
together
> > if there is more information than will fit in one packet.
>
> Agree completely with the addition of the DATE/TIME (and a SERIAL number
> as I noted before).
>
> > Brent's complaint
> > was that the n1,d1,n2,d2 format was redundant.
>
> Not at all.   Most forms are very sparse and most times you only fill in a
> small number of fields. Also later you will want to send UPDATES to
> various fields on the forms. It is better to send the field number and
> then the data in order to keep the overall packet size smaller.
>
> Of course this all depends on assumptions:
> 1) Forms are usually sparse and not all fields are usually used
> 2) Frequently only a few numbers on a form change and those need to be
>   updated efficiently.
>
> If these assumptions are not correct, then I agree that numbering every
> field adds overhead, but I think the assumptions are more correct than
> not...
>
> > Also, let's not forget the
> > TIME and DATE so we can keep shelter lists sent at different times
indexed.
>
> The serial number is for indexing... Not the date/time stamp. THus only
> the serial number is unique. If a new packet contains a matching serial
> number, then it is "replacement" data and the new date/time of the form is
> the date/time of the most recent update.
>
>
>
> Bob
> >
> > ----- Original Message -----
> > From: "Bob Bruninga" <bruninga@usna.edu>
> > > OK, lets do it. If I can summarize what you proposed:
> > >
> > > SHELTER FORMAT: +FORM,N1,D1,N2,D2,Nn,Dn...
> > >
> > > WHere:
> > > "+" is the SHELTER FORMAT INDICATOR (APRS Type character)
> > > "FORM" is a variable length FILENAME (with assumed extension .FRM
> > > "N1,D1" are ordered pairs of numbers with the first being the
> > >   Nth FIELD and the second being a STRING value for that field.
> > > LENGTH. There is a maximum packet length of bytes of 128 bytes
> > >   starting with the "+" byte.
> >
> >
>

> de WB4APR@amsat.org, Bob
>
> PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
> ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
> CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
> APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
> APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
> MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html
>
>
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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30. [aprsspec] Re: Request for comment? Shelter list

From: Roger Barker <roger@peaksys.co.uk>
Date: Mon, 9 Sep 2002 19:18:16 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97836-2002.09.09-13.59.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-97831-2002.09.09-13.39.57--roger#peaksys.co.uk@list
s.tapr.org>, wes johnston <wes@johnston.net> writes
>Suffice it to say that each agency involved already has a way of numbering
>their forms and their revision levels. When we move in to help them, we
>need to make sure we are as "transpearant" as possible. I know that DOS
>restricts us to 8.3 filenames, but windows, linux and mac do not.

Win31 has an 8.3 restriction.

> I don't
>care much for 8.3 naming of forms b/c some agencies may have a form name
>which is longer than that (esp when you start adding revision levels).
>Since these lists will be sent locally, and we try to make all offices of an
>agency interoperatable, one could assume that either 1)every PC in every
>shelter would run the same version of aprs software (everyone either uses >8
>file names or not), 2) that issues of naming a file so that the lowest
>common denominator would work would be handled locally,

I think you're creating great potential for an "Oops! Sorry! Our systems
can't talk to each other!" scenario...

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

31. [aprsspec] Re: Request for comment? Shelter list

From: Keith Sproul <ksproul@rci.rutgers.edu>
Date: Mon, 9 Sep 2002 15:45:34 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: aprsspec@lists.tapr.org
Message-ID: <LYR11589-97849-2002.09.09-15.37.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Date: Mon, 9 Sep 2002 14:07:07 -0400
To: "Wes Johnston" <kd4rdb@netzero.com>, "APRS Spec Discussion List"
<aprsspec@lists.tapr.org>
From: Keith Sproul <ksproul@rci.rutgers.edu>
Subject: Re: [aprsspec] Request for comment? Shelter list

I am sorry, but I did not see the original request...

I will be more than happy to give you the previous work on this and help..

The best starting place is to talk on the phone..

Please PLEASE PLEASE do not make it starting with $SL, i.e. no $ at ALL!!!

This would screw up the protocol all together.. I will share with
you what was done....

Keith Sproul

At 22:15 -0400 9/7/02, Wes Johnston wrote:
I have written the Sprouls to ask for their help (or any work
previously done) for the shelters list. After about a month and no
response, I have come up with a few things.

Goals:
1.I want to develop a method which is interoperable across APRS and PSK31.
2.A shelter list is simply a collection of data. Alpha and numeric
characters to be filled in on a form.
3.The forms are already in use. Every agency uses different forms,
so we need a way to specify a particular form and numbered
fields
4.All data needs to be human readable - ie compatible with PSK31's
character set.
5.Data needs to have the ability to be fragmented into small (80byte
or is it 67 byte?) chunks and reassembled on the other end.
6.PSK data needs a checksum. I suggest the plaintext hexadecimal XOR
system used in NMEA data.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

32. [aprsspec] Shelter format evolution.

From: "Wes Johnston" <kd4rdb@netzero.com>
Date: Mon, 9 Sep 2002 16:58:06 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97863-2002.09.09-16.39.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Today, we have addressed
1) Quotes around text that may contain commas
2) date
3) serial number (should we use the "{" at the end of packet just like
message protocol?)
4) file name length and file extension (are the votes in yet?)
5) should "shelters" be a subset of message format or it's own data type.
(votes?)
6) Field name and Field data structure.

As far as the basic field name/field data format, I see two camps...
Bob wants to specify n1,d1,n2,d2,n3,d3....
Brent wants to speicfy d,d,d,d,d,d .....

Here's a compromise...
Any field starting with a "&" is considered to be a field name. Other than
that, you just specify the first field name, and data fields in sequence
until you need to skip a field. At that point have a field with &x (where x
is the field number/name), and continue on with data in sequence from there.
Note that this does not preclude using the & character in any part of any
text that may be in a field, only in the *first* position.

+FORM.EXT,DDHHMM[/|z],{&n1,}d1,n2,d3.....,&Nx,dx,dx+1,dx+2{<serialnumber>

Consider these two examples....
+form.txt,091447/,<data1>,<data2>,<data3>, ,<data5>,<data6> ,{001
note the missing field--------------------------------^
or
+form.txt,091447/,&<field1>,<data1>,<data2>,<data3>,&<field5>,<data5>,<data6
>{001

Does this satisfy both camps?

Wes

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

33. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 18:26:47 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97875-2002.09.09-18.07.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 9 Sep 2002, B. Hildebrand wrote:

> 1) TXT - you could of course create a directory for forms.
> 2) APRS-IS transparency. That is not what I'm talking about. The "+"
> construct as defined, is not a directed packet. A Message packet is only
> directed packet that traverses the APRS-IS, RF>Internet>RF or Internet>RF.
> 3) Using messages does add overhead, but that overhead is used to help
> (help) insure packet delivery. And group names can be used if desired.

Agree to all, but although we are talking about "forms" and we can all envison a bunch of red-cross forms of various descriptions and these in general probably need to go to one place, that is not what I think of when I think of the "general shelters concept" that we are trying to implement in APRS.

The original concept of "shelters" was just a buzz word to describe the ability to transmit to the NET, the presence of resources of all kinds at any given location. This was good data to have and display at all stations. Two examples are:

SHELTER: Beds, people, casualties, meals, workers, VIPS's, blankets, etc
STATION: VHF, UHF, HF, Bands, ATV, SSTV, APRS, Internet, Phone, E-power

So in this discussion, I am not thinking in terms of directed data, but data that is displayed at all stations for everyone showing the capabilities and resources at that location...

Hope that helps.

Wes's idea of using "forms" as a way to give us an almost infinite variety of reporting formats is just an expansion of my original APRS concept where I was using a single character (1 of 92) different pre-defined formats. But the Forms idea makes it generic and alterable in the field... I like it...

About the .TXT extension. Even if it is placed in an "APRS\FORMS" directory, these files are going to be exchanged individually over and over and almost re-created and re-defined on the fly and in the field. In this case, people are going to be sending these files named "XXXXX.TXT" independently of the application. THus when I see an attachment or get a disk with some .TXT files and see R-CROSS.TXT file, sooner or later I am going to forget that that is a FORMS file.

I just dont like making life harder than it already is. If it is a special file with a special application, then I dont see the harm in calling it a FORM file. Since someone said that FRM is already in use, then lets go with the suggested AFF for APRS-FORM-FILE. Then when I see a "AFF" file, I will konw what it is without having to open it and look at it...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

34. [aprsspec] Re: Request for comment? Shelter list

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 18:35:18 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>

Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97877-2002.09.09-18.16.17--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 9 Sep 2002, wes johnston wrote:

> the spec. I know someone has to set a limit b/c so many languages require
> declaration of variables, but it shouldn't be 8 characters. How about 32?
>
> No disrespect indended, but would it be possible to generate a table in APRS
> dos to cross referance the possible long file name to an 8.3 name?

I strongly disagree. Just because someone names a FORM as
"RED_CROSS-VOLUNTEER_BACKGROUND-DATA_FORM" is certainly no reason for us
to be so wasteful in bandwidth when all we are trying to do is identify
the format of that form. And since such a file name is meaningless
unless the form is available on both ends of a COMM link, then, there
is little requirement for detailed human readability. Just make sure that
both ends of the link have the RCVBDF1.AFF file and be done with it.
And this way every single packet dealing with that form only has to have
the letters "RCVBDF1" in it and not the 32 bytes of verbose chatter...

An 8 byte file name can represent over 4,000,000,000,000 different files.
Should be enough...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

35. [aprsspec] Re: Shelter format evolution.

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 9 Sep 2002 18:52:03 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97879-2002.09.09-18.33.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 9 Sep 2002, Wes Johnston wrote:

> Today, we have addressed
>
> As far as the basic field name/field data format, I see two camps...
> Bob wants to specify n1,d1,n2,d2,n3,d3....
> Brent wants to speicfy d,d,d,d,d,d .....

Steve McCarter also notes that you have to have the former since:
> Also, consider the issue of a form that has more filled out fields than
> can be fit into a single packet. This will require fragmenting the form
> field listing over at least two packets, so field numbering is important
> to knowing *which* field the value belongs to!

> Here's a compromise...
> Any field starting with a "&" is considered to be a field name. Other than
> that, you just specify the first field name, and data fields in sequence
> until you need to skip a field. At that point have a field with &x (where x
> is the field number/name), and continue on with data in sequence from there.

I think that is getting close. Because except for the mult-packet
problem, I think most forms will probably be more than 50% full, so then
leaving out the FIELD NUMBER will save data. But you do have to have the
STARTING field for the sake of multi-packet extensions. So I suggest:

  +FORM..,DDHHMM,S#,N#,D,D,D,D,D,,,,,

Where S is the serial number, N is the STARTING data field and D is all
values after.... where FORM is up to an 8 byte file name with the assumed
extension of .AFF. DDHHMM is the time stamp for this particular data
update. Length is limited to 128 data bytes starting with the "+".

de WB4APR, Bob

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36. [aprsspec] Re: Request for comment? Shelter list

From: KC7ZRU - Tate <kc7zru@arrl.net>
Date: Mon, 09 Sep 2002 19:26:57 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97897-2002.09.09-21.07.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Check existing filename extensions. Use this to see if anything chosen
may collide with other recognized extensions:

http://filext.com/

--
              Casper, WY | CARC Repeater
                DN62tt | 146.940
        "The Dungeon" online at http://go.to/kc7zru
            "RTFM" is NOT a 'four letter' word!

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37. [aprsspec] Re: Request for comment? Shelter list

From: "Steve McCarter" <kb4oid@kb4oid.org>
Date: Tue, 10 Sep 2002 10:57:51 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-97994-2002.09.10-11.41.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I inadvertly reply'd directly to Bob, instead of the list earlier, so I am
reposting my comment of last night.

> > Brent's complaint
> > was that the n1,d1,n2,d2 format was redundant.
>
> Not at all.   Most forms are very sparse and most times you only fill in a
> small number of fields. Also later you will want to send UPDATES to
> various fields on the forms. It is better to send the field number and
> then the data in order to keep the overall packet size smaller.
>
> Of course this all depends on assumptions:
> 1) Forms are usually sparse and not all fields are usually used
> 2) Frequently only a few numbers on a form change and those need to be
>   updated efficiently.
>

Also, consider the issue of a form that has more filled out fields than can
be fit into a single packet. This will require fragmenting the form field
listing over at least two packets, so field numbering is important to
knowing *which* field the value belongs to!

Steve McCarter, KB4OID
Fort Walton Beach, FL 32547, EM60ql
e-Mail me at kb4oid@kb4oid.org
Here's my personal site: http://www.kb4oid.org/
Visit PARC Online: http://www.w4zbb.org/

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38. [aprsspec] Re: Shelter format evolution.

From: "wes johnston" <wes@johnston.net>
Date: Tue, 10 Sep 2002 12:58:20 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-98004-2002.09.10-12.41.34--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

Present format: :
  +FORM.EXT,DDHHMM[z|/],S#,N#,D,D,D,D,D,,,,,.....

I still don't see how the date/time stamp isn't a serial number... it
does repeat after 30 days though... but then so would a serial number
each time the power failed and you had to restart your PC.

What about a heirachy for indexing based soley on FROMCALL -> FORM name->
DATE/TIME ? In other words, I should be able to hook (or double click) on a
station and pull up a text page with a listing of all shelter reports, click
on a report and see each date and time that form was used. Clicking on each
date/time should show a completed form with the blanks filled out.

If the serial number makes indexing in program memory or on disk easier, and
you are willing to have a few extra characters in a file, ok then.

Is there a top limit for serial number before it cycles back to 0?

When a packet is fragmented, do each of the fragments have the same serial
number for collation? Or is each fragment uniquely numbered? I was
thinking that the fragments would be collated by date/time stamp.

Am I being thick?

Wes

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "Wes Johnston" <kd4rdb@netzero.com>
Sent: Tuesday, September 10, 2002 11:00 AM
Subject: Re: [aprsspec] Shelter format evolution.

> On Mon, 9 Sep 2002, Wes Johnston wrote:
>
> > Only thing in this that bothers me is the serial number... on the one
hand,
> > it's a good thing, on the other it's redundant... date/time can we used
to
> > match up fragmented packets just as well as a serial number.
>
> Not at all. At 101435 there were 33 beds at the shelter.
> At 101530 there were only 24 empty beds. The only way to match these up
> is by serial number. Oh, but that is a bad example because there is only
> one form at each site.
>
> Better example is LOST PERSON REPORT FORM (there may be hundreds at a
> site). 3 hours after the initial report of SUZAN last seen 5th and
> vine is an update for the SUZAN report where she was last seen at 4th and
> Maine street. Both will have different time stamps, but both have to get
> to the LOST {PERSON FORM #xxxx that applies to SUZAN... Only the serial
> bumber can do that...
>
> Bob
>
> > > Wes >
> > ----- Original Message ----- > From: "Bob Bruninga" <bruninga@usna.edu>
> > To: "Wes Johnston" <kd4rdb@netzero.com>
> > Sent: Monday, September 09, 2002 7:28 PM
> > Subject: Re: [aprsspec] Shelter format evolution.
> >
> >
> > > On Mon, 9 Sep 2002, Wes Johnston wrote:
> > >
> > > > What about when you want to skip a few fields, the suggestion of
putting
> > the
> > > > & character infront of a number to indicate that it is to begin a
new
> > > > sequence? Or are you saying that if you have to skip a field or two
or
> > 10,
> > > > just fragment the packet and start a new one beginning with the next
> > > > sequence number?
> > >
> > > No, just put in null fields as in
> > >
> > > Packet 1:   #1,1,2,3,,,,,8,9,10,,,,,,,15

> > > Packet 2:   #16,,,,,,,,20,,,,,,,,,,30
> > >
> > > Here of courese I put the number "8" as the 8th data field for
> > > simplicity...   But only the #1 and #16 actually are field numbers...
> > >
> > > Bob
> > >
> > >
> > >
> >
>
> de WB4APR@amsat.org, Bob
>
> PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
> ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
> CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
> APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
> APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
> MIM/Mic-E/Mic-Lite http://www.toad.net/~wclement/bruninga/mic-lite.html
>
>

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39. [aprsspec] Re: Shelter format evolution.

From: "wes johnston" <wes@johnston.net>
Date: Tue, 10 Sep 2002 15:08:08 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-98030-2002.09.10-14.52.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Ahhhh.... I hadn't considered a forms for each victim at site.... Serial
number it is...

Was that the last hurdle? (me feeling very good)

Wes

----- Original Message -----
From: "Bob Bruninga" <bruninga@usna.edu>
To: "wes johnston" <wes@johnston.net>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Tuesday, September 10, 2002 1:48 PM
Subject: Re: [aprsspec] Shelter format evolution.

> On Tue, 10 Sep 2002, wes johnston wrote:
>
> > Present format: :
> >   +FORM.EXT,DDHHMM[z|/],S#,N#,D,D,D,D,D,,,,,,,,,.
> >
> > I still don't see how the date/time stamp isn't a serial number... it
> > *does* repeat after 30 days though... but then so would a serial number
> > each time the power failed and you had to restart your PC.
>
> Serial number identifies each use of the form. If each person at a
> shelter has a VICTIM-DATA-FORM to fill out, and there are 400 people,
> then you need 400 serial numbers to identify each use of said form...
>

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40. [aprsspec] Re: Shelter format evolution.

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 10 Sep 2002 15:13:47 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-98031-2002.09.10-14.55.12--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

On Tue, 10 Sep 2002, wes johnston wrote:

> Present format: :
>   +FORM.EXT,DDHHMM[z|/],S#,N#,D,D,D,D,,,,,.....
>
> I still don't see how the date/time stamp isn't a serial number... it
> *does* repeat after 30 days though... but then so would a serial number
> each time the power failed and you had to restart your PC.

Serial number identifies each use of the form. If each person at a
shelter has a VICTIM-DATA-FORM to fill out, and there are 400 people,
then you need 400 serial numbers to identify each use of said form...

The time stamp has notghing to do with the data on the form. It simply
identifies for this packet and this particular instance for this form
(VICTIM number 347 for example) the date/time that this packet was
sent. The presumption is that if you sent this packet, you also
updated anything else on the formt that has changed as welll. Thus
this date/time stamp represents when this particular instance of this
particular form was last updated.

No two packets will ever have the same date/time stamp so they cannot
be used for indexing...
...
> What about a heirachy for indexing based soley on FROMCALL -> FORM
> name-> DATE/TIME ? In other words, I should be able to hook (or double
> click) on a station and pull up a text page with a listing of all
> shelter reports, click on a report and see each date and time that form
> was used. Clicking on each date/time should show a completed form with
> the blanks filled out.

This scerario does not allow for updating an existing form. I think that
is fundamental to what we are trying to accomplish...
>
> If the serial number makes indexing in program memory or on disk easier, and
> you are willing to have a few extra characters in a file, ok then.
>
> Is there a top limit for serial number before it cycles back to 0?

It is a variable length field. So if you only use the form 10
diffferejnt ways at once shelter, then you use 0-9. If you want to use
it 999999 different times, then use whatever serial bumber you want.
>
> When a packet is fragmented, do each of the fragments have the same serial
> number for collation?

Yes, definately...

> Or is each fragment uniquely numbered? I was
> thinking that the fragments would be collated by date/time stamp.

Backwards. Each fragement is identified by serial number to match it to
the form in use and the specific instance of the form. The time stamp
changes with every packet transmitted...

bob

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41. [aprsspec] Carriage returns

From: "Paula Dowie" <g8pzt@blueyonder.co.uk>
Date: Tue, 10 Sep 2002 23:28:19 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-98043-2002.09.10-18.11.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm sure this topic has been raised by others, but I can't find the answer
so I apologise for asking again.

Question 1: The aprs protocol reference version 1.0 makes no mention of
carriage return characters in the ax25 information field, and I cannot see a
purpose for them, so am I correct in presuming that APRS frames do not have
to be terminated with carriage returns?

Question 2: Some of the frames I am receiving off air are terminated with
<CR> and others are not. What action should I take when sending these to
APRS_IS ? e.g. should I normalise all frames to the telnet end of line
sequence <CR><LF> or should I send those frames which are terminated with
<CR> as <CR><NULL><CR><LF> ?

Question 3: Are frames received from the APRS_IS "normalised", or do they
preserve the original <CR> (if present) by sending it as <CR><NULL> so that
the frame can be retransmitted exactly as it was sent?

73, Paula
------
g8pzt@blueyonder.co.uk
http://www.pzt.org.uk
Telnet: g8pzt.ath.cx:23 (Kidderminster router:)
Telnet: g8pzt.ath.cx:1448 (APRS server)
Telnet: g8pzt.ath.cx:3600 (Chat server)
Telnet: gb7pzt.dyndns.org:88 (gb7pzt bbs user access)
Telnet gb7pzt.dyndns.org:6300 (gb7pzt bbs forwarding access)
http://gb7pzt.dyndns.org/cgi-bin/menu.pz (GB7PZT web interface)

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42. [aprsspec] Re: Carriage returns

From: Dale Heatherington <dale@wa4dsy.net>
Date: Tue, 10 Sep 2002 19:00:23 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-98065-2002.09.10-18.39.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tuesday 10 September 2002 06:28 pm, you wrote:
> I'm sure this topic has been raised by others, but I can't find the answer
> so I apologise for asking again.
>
> Question 1: The aprs protocol reference version 1.0 makes no mention of
> carriage return characters in the ax25 information field, and I cannot see
> a purpose for them, so am I correct in presuming that APRS frames do not
> have to be terminated with carriage returns?

Not required in the raw ax25 format. They are needed in the
ASCII domain to terminate the line.

>
> Question 2: Some of the frames I am receiving off air are terminated with
> <CR> and others are not. What action should I take when sending these to
> APRS_IS ? e.g. should I normalise all frames to the telnet end of line
> sequence <CR><LF> or should I send those frames which are terminated with
> <CR> as <CR><NULL><CR><LF> ?

Aprsd normalizes them to <CR><LF>

>
> Question 3: Are frames received from the APRS_IS "normalised", or do they
> preserve the original <CR> (if present) by sending it as <CR><NULL> so
> that the frame can be retransmitted exactly as it was sent?

Yes they are normalized if they came from aprsd. I do not know
about other servers.

>
> 73, Paula
> ------
> g8pzt@blueyonder.co.uk
> http://www.pzt.org.uk
> Telnet: g8pzt.ath.cx:23 (Kidderminster router:)
> Telnet: g8pzt.ath.cx:1448 (APRS server)
> Telnet: g8pzt.ath.cx:3600 (Chat server)
> Telnet: gb7pzt.dyndns.org:88 (gb7pzt bbs user access)
> Telnet gb7pzt.dyndns.org:6300 (gb7pzt bbs forwarding access)

> http://gb7pzt.dyndns.org/cgi-bin/menu.pz (GB7PZT web interface)
>
>
>
>
>
>
>
> ---
> You are currently subscribed to aprsspec as: dale@wa4dsy.net
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

--
Dale Heatherington
Web: http://www.wa4dsy.net

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43. [aprsspec] Re: Carriage returns

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Tue, 10 Sep 2002 19:05:07 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-98068-2002.09.10-19.46.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Dale Heatherington [mailto:dale@wa4dsy.net]
> Posted At: Tuesday, September 10, 2002 6:00 PM
> Subject: [aprsspec] Re: Carriage returns
>
> On Tuesday 10 September 2002 06:28 pm, you wrote:
> > I'm sure this topic has been raised by others, but I can't
> find the answer
> > so I apologise for asking again.
> >
> > Question 1: The aprs protocol reference version 1.0 makes
> no mention of
> > carriage return characters in the ax25 information field,
> and I cannot see
> > a purpose for them, so am I correct in presuming that APRS
> frames do not
> > have to be terminated with carriage returns?
>
> Not required in the raw ax25 format. They are needed in the
> ASCII domain to terminate the line.

There is nothing that precludes sending a CR or LF via AX.25. HOWEVER,
the APRS spec assumes TNC's used in monitor mode which DOES preclude
sending or receiving CR or LF. Therefore, the raw I-frame for APRS must
NOT have either a CR or LF in it. If you are using a TNC not in KISS
mode, you must terminate each packet with a CR and/or LF so the TNC
knows the packet is complete.

> > Question 2: Some of the frames I am receiving off air are
> terminated with
> > <CR> and others are not. What action should I take when
> sending these to
> > APRS_IS ? e.g. should I normalise all frames to the telnet
> end of line
> > sequence <CR><LF> or should I send those frames which are
> terminated with
> > <CR> as <CR><NULL><CR><LF> ?
>
> Aprsd normalizes them to <CR><LF>

I think this normalization should be done by all IGates, but that is my
personal preference. Glad to see aprsD does that.

> > Question 3: Are frames received from the APRS_IS
> "normalised", or do they
> > preserve the original <CR> (if present) by sending it as
> <CR><NULL> so
> > that the frame can be retransmitted exactly as it was sent?
>
> Yes they are normalized if they came from aprsd. I do not know

> about other servers.

javAPRSSrvr also terminates each line with a CR LF sequence (after
stripping any CR's and LF's from the received line).

73,

Pete Loveall AE5PL
http://www.ae5pl.net
mailto:pete@ae5pl.net

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44. [aprsspec] Re: Carriage returns

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 11 Sep 2002 09:18:20 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-98124-2002.09.11-03.59.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-98065-2002.09.10-18.39.37--roger#peaksys.co.uk@list
s.tapr.org>, Dale Heatherington <dale@wa4dsy.net> writes
>On Tuesday 10 September 2002 06:28 pm, you wrote:
>> I'm sure this topic has been raised by others, but I can't find the answer
>> so I apologise for asking again.
>>
>> Question 1: The aprs protocol reference version 1.0 makes no mention of
>> carriage return characters in the ax25 information field, and I cannot see
>> a purpose for them, so am I correct in presuming that APRS frames do not
>> have to be terminated with carriage returns?
>
>Not required in the raw ax25 format. They are needed in the
>ASCII domain to terminate the line.

This has been discussed in the past, I remember it well. The conclusion
was that *all* frames transmitted on RF should be terminated with a CR.
I remember it well because, at that time, UI-View didn't put a CR on RF
frames when the user was using KISS mode, and I changed it to make sure
that every frame had a CR on it.

This wasn't simply about putting a CR on the frame as the SENDPAC
character when using a TNC in terminal mode, it was about making sure
the RF frame had a CR on it.

The discussions occurred in January 2001. I can't remember the details,
but in my email archives I found a message I sent to the APRSSIG arguing
that a CR wasn't needed on RF - see below. Obviously after that point I
was persuaded otherwise.

****
In article <LYR1643-129909-2001.01.17-12.45.57--roger#peaksys.co.uk@list
s.tapr.org>, Bob Bruninga <bruninga@usna.edu> writes
>Correct. If the spec does not specifically say a CR is required, then it
>should. THat is the only way to ensure proper decoding with all programs,
>TNC's, modes, and links.

I'm having difficulty envisaging the situation in which it makes any
difference whether or not a packet transmitted on RF includes a CR.
Etc...
****

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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45. [aprsspec] Re: User defined APRS formats (May 2002)

From: Bob Bruninga <bruninga@usna.edu>
Date: Sun, 15 Sep 2002 17:11:06 -0400 (EDT)

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS SIG <aprssig@lists.tapr.org>
Message-ID: <LYR11589-98789-2002.09.15-16.52.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

APRS USER DEFINED DATA FORMATS LIST Sep 2002 (Previous was May 2002)

```
HEADER  AUTHOR   DESCRIPTION
------  -------- ----------------------------------------------------
 {Fnn   WB4APR   nn is a 2 byte descriptor of MITEL GPS data formats
 {K1    WB4APR   "K" for Keps and "1" for NASA One line.
 {K2n   WB4APR   For NASA two line elements. "n" is line 1 or 2.
 {x1    J Bennet for WX
 {x2    J Bennet for WX
 {HT    WB4APR   For HAM-Trail reporting devices (tbd)
```

de Wb4APR, BOb

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46. [aprsspec] question

From: "stephen galowski" <sgalow@ihug.com.au>
Date: Wed, 18 Sep 2002 20:24:12 +1000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-99236-2002.09.18-05.58.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

hi list members
my question is as follows .

how easy is it to add to the aprs in the weather section
a terminal based weather station that runs on 1200 bps
 n 8 1 , in real time in 1 minute intervals

stephen galowski

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47. [aprsspec] APRS TOCALLs/versions (Sept 2002)

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 20 Sep 2002 18:03:51 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-99726-2002.09.20-17.45.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here is the current list of APRS TOcalls and Version nomenclature that I
have updated. Previous one was June 2002 version 3.

I have added: APTWxx for Byon's WXTrak and WB6ZSU's APNAxx for APRServe.

```
 APA A-Filter, Alinco, etc
     APAFxx  AFilter.
     APAGxx  AGATE
     APAXxx  AFilterX.
     APAHxx  AHub
 APB Rabbit TCPIP microprocessors
 APC Windows CE, etc
     APCYxx  Cybiko applications
 APD APRSd, etc
     APDTxx  APRStouch Tone (DTMF)
 APE avail
 APF avail
 APG Gates, etc
 APH HamHud, etc
 API Icom, etc
     APICQx for ICQ
 APJ JavaAPRS,JeAPRS,etc
     APJAxx JavAPRS
     APJExx JeAPRS
```

```
 APK Kenwood, etc
     APK0xx THD7's
     APK1xx D700's
 APL Liunx applications
 APM MacAPRS, etc
 APN Network nodes, digis, etc
     APN3xx Kantronics KPC-3 rom versions
     APN9xx Kantronics KPC-9612 Roms
     APNAxx WB6ZSU's APRServe
     APNMxx MJF TNC roms
     APNPxx Paccom TNC roms
     APNDxx DIGI_NED
     APNUxx UIdigi
 APO APRSpoint
 APP pocketAPRS, etc
 APQ avail
 APR APR8xx APRSdos,etc
     APRDxx APRSdata, APRSdr
     APRKxx APRStk
     APRS   Generic, (obsolete. Digis should use APNxxx instead)
     APRXxx APRSmax
     APRTLM used my MIM's and Mic-lites, etc
     APRSTx APRStt (Touch tone)
 APS APRS+SA, etc
 APT TinyTrack
     APTTxx Tiny Track
     APT2xx Tiny Track II
     APTAxx K4ATM's tiny track
     APTWxx Byons WXTrac
     APTV for ATV/APRN and SSTV applications
 APU UIview, etc
     APU1xx UIview 16 bit applications
     APU2xx UIview 32 bit apps
     APU3xx UIview terminal program
 APV avail
 APW WinAPRS, etc
 APX Xaprs, Xastir, etc
 APY etc, Yeasu, etc
 APZ Experimental
     APZ0xx Xastir (old versions. See APX)
     APZPAD Smart Palm

Authors with similar alphabetic requirements are encouraged to share
their address space with other software.  Work out agreements amongst
yourselves and keep me informed.

de WB4APR, Bob



---
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```

48. [aprsspec] New to APRS

From: Terry W Arnall <tarnall@juno.com>
Date: Mon, 23 Sep 2002 04:34:37 -0700

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-100069-2002.09.23-07.17.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I am brand new to APRS and have not got it running yet.
Are there two zip files that need to be downloaded for APRS-SA?

Terry - KB6EBZ

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49. [aprsspec] Re: Shelter format evolution.

From: "Wes Johnston" <wes@johnston.net>
Date: Sat, 28 Sep 2002 07:33:32 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-100853-2002.09.28-07.15.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Has anyone done any implementation? I'd really like to be able to show off
the shelter list / forms feature!! Sprouls??? please?? Hurricaine season
is upon us, and active.

Wes

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50. Q: DOES YOUR FOREIGN ACCENT SIMPLY GET IN THE WAY?

From: Sarah Benson <sarah_benson@nomoreaccent.com>
Date: Sun, 29 Sep 2002 16:59:58 -0500
To: undisclosed-recipients:;
Message-ID: <20020929220007.0E5ABAAB5@mx2.mail.twtelecom.net>
Rendered body type: text/plain

Q: " Would you like to Lose Your Accent ? "

- DO YOU FIND OTHERS HAVE A HARD TIME UNDERSTANDING WHAT YOU ARE TRYING TO CONVEY?

- DO YOU FIND THE NEED TO REPEAT YOURSELF FOR OTHERS TO UNDERSTAND YOU CLEARLY?

- DO YOU FEEL EMBARRASSED OR LESS CONFIDENT WHEN TALKING TO WORK COLLEAGUES?

- DO YOU WISH TO COMMUNICATE YOUR THOUGHTS MORE EFFECTIVELY?

- DOES YOUR FOREIGN ACCENT SIMPLY GET IN THE WAY?

Introducing the Krieger Method, an innovative teaching system, designed to help you develop effective
communication skills.

Andy Krieger, inventor of this miracle product, originated this revolutionary idea whilst working with
actors and their accents within the Hollywood film industry.

Contact us to learn about the true benefits you can obtain to communicate with confidence!!

"Make your accent simply disappear!"

For Accent Reduction Empowerment, visit us on the web today at :-

www.nomoreaccent.com

Thank you for your time and interest...

Sarah J. Benson
Marketing Co-ordinator

If you feel this is email is not of interest to you, then we sincerely apologize and guarantee you will
not receive another email from us, unless you otherwise wish.

October 2002

Original source file: aprsspec.0210
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0210

1. [aprsspec] Write

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Wed, 02 Oct 2002 18:41:05 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-101404-2002.10.02-18.24.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

TAPR members:

Here is your chance to become rich and famous! Well, maybe not rich, but
certainly famous.

The editorial board of Packet Status Register (PSR, TAPR□s quarterly
newsletter) is now soliciting articles, news items, etc. for the next issue
of the newsletter. Topics related to digital Amateur Radio will be given
preference and the editorial board reserves the right to determine what is
suitable for publication.

E-mail your contributions to wa1lou@tapr.org ASAP because the deadline for
the next issue of the newsletter is October 24.

73,

Stan Horzepa, WA1LOU, PSR Editor

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November 2002

Original source file: aprsspec.0211
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0211

1. [aprsspec] Paper copies of the APRS spec?

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Sat, 2 Nov 2002 16:36:57 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105304-2002.11.02-00.21.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

People

I am wondering if there is a need to publish the APRSspec onto paper? I
know it is available online, and that it is subject to change.

However it seems to be fairly stable, and is the sort of thing that I
refer to all the time. Or I would if I had a paper copy for the shack.

Would people buy a copy if it were made available? Feel free to email me
directly and I will summarise the responses.

Thanks

Darryl

Darryl Smith, VK2TDS POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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2. [aprsspec] Re: Paper copies of the APRS spec?

From: Roger Barker <roger@peaksys.co.uk>
Date: Sat, 2 Nov 2002 09:22:19 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105311-2002.11.02-04.06.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-105304-2002.11.02-00.21.00--roger#peaksys.co.uk@lis
ts.tapr.org>, Darryl Smith <Darryl@radio-active.net.au> writes
>People
>
>I am wondering if there is a need to publish the APRSspec onto paper? I
>know it is available online, and that it is subject to change.
>
>However it seems to be fairly stable, and is the sort of thing that I
>refer to all the time. Or I would if I had a paper copy for the shack.
>
>Would people buy a copy if it were made available? Feel free to email me
>directly and I will summarise the responses.

I think if I ever wanted a printed copy, I'd print my own.

One problem I found with the approved version of the spec, was that it
didn't have section header bookmarks - the draft versions did. So I
bookmarked it myself in the style of the draft versions. If anyone else
thinks that would me useful, the bookmarked copy is on my web site -
http://www.ui-view.com/aprs/ap101bm.zip

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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3. [aprsspec] APRS-IS Specialized Servers

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 3 Nov 2002 13:05:27 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105447-2002.11.03-13.48.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Over the past few months, there has been some concern raised regarding
the use of APRS-IS to broadcast information available from other
Internet sources for the sole consumption of Internet-connected clients
(not for RF). The concerns expressed are multifaceted, but bandwidth is
one of the major issues. At the risk of flames from those with their
own agendas to promote, I would like to advance some principals and
ideas on the use of APRS-IS and possible ways to expand its use without
becoming a burden to those that support it. Most of these ideas are
simply gathered from views expressed by others either here or elsewhere.

1) APRS-IS is a high speed backbone interconnecting local RF networks.
Bob has stated a number of times that APRS was developed as a "tactical"
protocol. APRS-IS provides "intelligent" linking of these individual
tactical networks by the use of IGates and servers. If the primary
purpose, today, of APRS-IS is to link RF networks, then any data
injected into APRS-IS should also be of a form easily gated to an RF
network.

2) APRS-IS is supported by donated equipment, bandwidth, and time.
As such, it is the responsibility of those that use APRS-IS to minimize
their impact on this donated resource while maintaining solid linking
between RF networks. Data injected into APRS-IS in bursts creates peak
loads that can overload the donated resources.

3) Internet access is not free and, in some parts of the world, can be
very expensive for streaming data.
This should encourage those of use with "cheap" bandwidth to be
respectful of those that don't have that bandwidth. Server operators
who inject data into APRS-IS where no RF network desires that
information should rethink their distribution method out of respect for
the other hams using the network.

Given the above principals, the question comes to mind "I would like to
see more data from APRS-IS, what is the best way to inject that data?"
There are two methods for placing data on APRS-IS: push and pull. The
push method is used by WXSRVR to place weather events issued by the NWS
(US weather service) onto APRS-IS for gating to RF. Dale has talked
about making the WXSRVR a push-pull server where abbreviated watches and
warnings would be "pushed" onto APRS-IS (still in an easily gated form)
but the more verbose information would only be injected if someone sent
a message to WXSRVR asking for the information. This would be a good
example of using both push and pull effectively.

The pull method could be implemented by those experimenting with
different information sources. It would reduce the impact on APRS-IS
and provide meaningful information to APRS users on RF. For instance, a
message to METAR asking for the closest weather would get a message back
from the METAR "station" with the abbreviated METAR weather report. A
message to FIRES for the closest fire would get a message back with the
closest fire information. The reason for posting here is this: we can
make "standardized" messages for any of these.

My thought along this line is as follows:
Define different services. For instance METAR, FIRES, BUOYS, QUAKES,
WXSRVR, etc.
Have some "standard" queries. For instance ?NEAREST, ?LATEST 40mi
(latest within 40 miles), ?NEAR 40mi (means within 40 miles), etc.

This would give us a great new use for APRS messaging, reduce the
bandwidth used by non-RF related information, and give someone in the
field a "mini-web browser".

Comments about defining services and message syntax?

73,

Pete Loveall AE5PL
pete@ae5pl.net

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4. [aprsspec] RE: APRS-IS Specialized Servers

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sun, 3 Nov 2002 14:12:57 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105456-2002.11.03-14.56.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In addition to providing "pull" services to all of APRS-IS, the
specialized servers could also offer ports for clients to connect to
directly receive the information that the server is generating. It is
important, however, that only clients (no servers) connect to these
ports. Servers connecting to other servers that are connected to these
specialized servers can cause the data to be inserted into the general
APRS-IS.

This mass interconnection of servers is also how loops occur on APRS-IS.
Server sysops should review their configurations and reduce or eliminate
most inter-server connections. Tier 2 servers should have single
bidirectional feeds which connect to the core servers. There should not
be multiple concurrent bidirectional feeds from a tier 2 server to the
core servers. Nor should a tier 2 server arbitrarily create concurrent
connections to other servers. The reasoning is simple: prevent loop
conditions; reduce bandwidth requirements at other servers.

73,

Pete Loveall AE5PL
pete@ae5pl.net

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5. [aprsspec] New Issue of Packet Status Register Available

From: John Ackermann N8UR <jra@febo.com>
Date: Tue, 05 Nov 2002 11:09:27 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105706-2002.11.05-10.53.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The Autumn 2002 issue of TAPR's journal, the _Packet_Status_Register_, is
now available online.

You can download it, and past issues of PSR, from http://www.tapr.org/psr
or via FTP from ftp.tapr.org/psr. The issue name is "Autumn_85_2002.pdf".

73,
John N8UR

John Ackermann   N8UR   jra@febo.com   http://www.febo.com
President, TAPR   n8ur@tapr.org   http://www.tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] How widely implemened is APRS Compressed format?

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Wed, 6 Nov 2002 17:58:22 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105815-2002.11.06-01.42.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

People

How widely implemented is the APRS compressed format. I want to do some
decoding in a PIC and it seems to me that dividing by 91, and then
converting from decimal degrees to degrees with decimal minutes may be
outisde the capabilities of the IC.

Also, I was wondering if there exists a reference C implementation for
it and MIC-E decode? That would be better than re-inventing the wheel

(again).

Many thanks

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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7. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 6 Nov 2002 12:34:59 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105904-2002.11.06-15.20.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 6 Nov 2002, Darryl Smith wrote:

> How widely implemented is the APRS compressed format. I want to do some
> decoding in a PIC and it seems to me that dividing by 91, and then
> converting from decimal degrees to degrees with decimal minutes may be
> outisde the capabilities of the IC.
>
> Also, I was wondering if there exists a reference C implementation for
> it and MIC-E decode? That would be better than re-inventing the wheel
> (again).

Compressed format is implemented in Xastir, including compressed
objects and items.

The Xastir source code is freely available under the GPL license and
written in C. We can't promise that it'll be easy to understand or
that it's the best written or commented code in the world, but it
might suffice for your "reference implementation".

    http://sourceforge.net/projects/xastir

Navigate to "CVS" and then "Browse CVS Repository". Most of the
decoding code is in "db.c".

You could also snag the entire source distribution and pick through
it at will. It's distributed in tar'ed gzip'ed format.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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8. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: Bill Vodall - WA7NWP <wa7nwp@yahoo.com>
Date: Wed, 06 Nov 2002 15:26:26 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105921-2002.11.06-18.10.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>
>The Xastir source code is freely available under the GPL license and
>written in C.

Once you include it directly in your software, you're required to
release your source code. No?   The poison pill principle.

Maybe it would be possible to use code on a non-GPL basis with permission
from authors of individual sections of XASTIR.

Bill - WA7NWP

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

9. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: "Timothy J. Salo" <salo@saloits.com>
Date: Wed, 6 Nov 2002 17:36:24 -0600 (CST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105922-2002.11.06-18.19.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Date: Wed, 06 Nov 2002 15:26:26 -0800
> To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
> From: Bill Vodall - WA7NWP <wa7nwp@yahoo.com>
> Subject: [aprsspec] Re: How widely implemened is APRS Compressed format?
>
> >The Xastir source code is freely available under the GPL license ...
>
> Once you include it directly in your software, you're required to
> release your source code. No?   The poison pill principle.
>
> Maybe it would be possible to use code on a non-GPL basis with permission
> from authors of individual sections of XASTIR.

You can extract the algorithms from code that is distributed under
the GPL license and then re-implement then. Given the length of
the code in question, this is probably feasible. Of course, I would
like to think that you would release your new code under a
Berkeley-style license.

But, no one seems to answered the question about how widely the
compressed format is implemented. My impression is that in the
past it was not widely implemented. Has this changed? (Insert
long whine here about APRS implement ions immutably cast in silicon
here.)

-tjs

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 6 Nov 2002 15:44:10 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105923-2002.11.06-18.29.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 6 Nov 2002, Bill Vodall - WA7NWP wrote:

> >The Xastir source code is freely available under the GPL license and
> >written in C.
>
> Once you include it directly in your software, you're required to
> release your source code. No?   The poison pill principle.

True. You're required to make it available if the user requests it.
It doesn't have to be distributed with each binary though. It's all
in the "COPYING" file that's distributed with Xastir.

> Maybe it would be possible to use code on a non-GPL basis with permission
> from authors of individual sections of XASTIR.

Yes. This is possible and allowable. I think he was looking for
reference code though, not necessarily code to use outright. If you
do want to use that bit of code directly, let me know. We can

probably work something out. I _think_ I wrote that portion. I
should be able to look up who did in any case.

It's always nice to have a working implementation to look at while
writing your own. The new version doesn't have to directly use any
code from the original. Just having something to test with that
does work is a real time-saver.

As always, Bill is looking at things with a critical eye. Keep it
up!

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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11. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: Mark Cheavens <mark@cheavens.com>
Date: Wed, 06 Nov 2002 21:40:46 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105970-2002.11.06-22.23.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I did not answer previously since I figured that there would be a lot of
posts about it!

As the digi sysop in Houston, I would guess that at least half of all
packets transmitted locally are compressed packets.

Think:
Kenwood
Pic-E
TinyTracks

That accounts for a LOT of activity.

Mark Cheavens
KC5EVE

But, no one seems to answered the question about how widely the
>compressed format is implemented. My impression is that in the
>past it was not widely implemented. Has this changed? (Insert
>long whine here about APRS implement ions immutably cast in silicon
>here.)
>
>-tjs

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12. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: James Jefferson <jjeffers@aprsworld.net>
Date: Wed, 6 Nov 2002 21:45:45 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-105971-2002.11.06-22.28.39--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Think:
> Kenwood
> Pic-E
> TinyTracks

I think he was asking about base-91 compressed packets, not Mic-E.

-Jim KB0THN

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13. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Thu, 7 Nov 2002 17:52:46 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106002-2002.11.07-01.36.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

G'Day

There are two types of compression in APRS - MIC-E and Base 91.

MIC-E is fairly easy to impliment... Base 91 is much harder as it gives
you a result that is 380926 points per degree latitude, or 190463 points
per degree longitude.

Since all the APRS protocols use is usually defined as fractions of
degrees, or fractions of minutes, or fractions of seconds, this number
is not easy to use.

Various people have commented that this protocole is not wirdely
implemented for that reason. The math involved in getting a tracker to
work on it is not nice in itself. The reason that base 91 was used was
for accuracy, but for the minor use a full NMEA string is better used.

As for the copyright issue, I feel that looking at an code to see how
they have implented it is fine. But I cannot use many of the pieces of
code since I want to be able to use some of the things that I am
developing commercially, either me leasing the built units out, or me
selling them commercially in the ham or commercial world.

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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14. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: "Curt Mills, WE7U" <archer@eskimo.com>
Date: Wed, 6 Nov 2002 23:52:57 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106005-2002.11.07-02.21.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 7 Nov 2002, Darryl Smith wrote:

> As for the copyright issue, I feel that looking at an code to see how
> they have implented it is fine. But I cannot use many of the pieces of
> code since I want to be able to use some of the things that I am
> developing commercially, either me leasing the built units out, or me
> selling them commercially in the ham or commercial world.

Note that a GPL Copyright does not mean that the code cannot be sold
or otherwise profitted from, it just means that the source code must
be made available. I (or anyone else) am free to charge whatever fee
I think I can extract. If I can get someone to pay me $1000 or
$10,000 per copy, more power to me. The license does not exclude
that.

If you want to develop something for which you can charge a pretty
penny and you don't want them to see what's "behind the curtain",
I'd suggest you learn what you can from the code and spec, extract
the algorithms, then code it up from scratch.

Curt, WE7U.   archer@eskimo.com
http://www.eskimo.com/~archer
  Lotto: A tax on people who are bad at math. - unknown
Windows: Microsoft's tax on computer illiterates. - WE7U.

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15. [aprsspec] OT open source, was: How widely implemened is APRS Compressed format?

From: "max" <mxd@wilder.net>
Date: Thu, 7 Nov 2002 00:16:46 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106007-2002.11.07-03.00.37--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

[m:.x:.d:.] We7U said to someone else:

> If you want to develop something for which you can charge a pretty
> penny and you don't want them to see what's "behind the curtain",
> I'd suggest you learn what you can from the code and spec, extract
> the algorithms, then code it up from scratch.

[m:.x:.d:.] I'd add that if you do this - since you won't let your code be free (as in speech) - consider contributing to the community that helped you create your program (by sharing their code with you) by giving some of the profits back to projects that help advance open source.

I'd suggest things like gnome (http://www.gnome.org/friends/), or KDE (http://www.kdeleague.org/contribute.php).

Not using linux? Well, still consider helping people who share code. GNU is pretty platform independent. (https://agia.fsf.org/mp/order.py?make-donation=1)

<soapbox>

as an aside - and I'm not pointing to anyone in particular - I find it very silly that people in the amateur radio community don't "get" the open source philosophy more readily.

People sharing code means more people see code, learn how to code better, and don't re-invent the wheel every time. This leads to more and better software. Rinse. Repeat. Open Source is automatic elmering. But, elmering has fallen out of fashion, I think....

I'm amazed that no one has written and released a general APRS parsing library. Everyone seems to do it from scratch. Why? Wouldn't the community be better served by creating a portable standard library that could be easily used by others? Has it been tried? I've never been able to find any record of such a thing. (by the way, if you want to work on a general APRS library, email me. I'm game.)

IMHO part of the death of packet was the inability of the pbbs authors to feel confident, or benevolent, enough to release their code so other people could help move it forward. It's much more important to them to collect a relatively paltry amount of money than to help advance and preserve their HOBBY for future generations. And for those that keep the system closed and don't ask for money, I'm baffled. Why would anyone ever do this??

Of course, there are exceptions. And, again, I'm not directing this at anyone in particular. It just frustrates me to see literally thousands of college kids sharing code and learning how to make better and better software while our hobbies state of the art digital systems run - by and large - on dos software that is barely maintained.

So, i guess you can flame me. But, just stating an opinion....

</soapbox>

73k6mxd
max

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16. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: Roger Barker <roger@peaksys.co.uk>
Date: Thu, 7 Nov 2002 08:34:28 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106008-2002.11.07-03.20.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-105970-2002.11.06-22.23.19--roger#peaksys.co.uk@lis
ts.tapr.org>, Mark Cheavens <mark@cheavens.com> writes
>I did not answer previously since I figured that there would be a lot of
>posts about it!

Given that it has turned into yet another open source discussion, I was
tempted to kill-file the thread...

>As the digi sysop in Houston, I would guess that at least half of all
>packets transmitted locally are compressed packets.
>
>Think:
>Kenwood
>Pic-E
>TinyTracks

They are Mic-E, I *think* the original question was about compressed
format (base 91).

My experience suggests that it is not widely used. Also, because the
level of support for compressed format varies between APRS clients, my
recommendation to UI-View users is not to use it, unless they have a
specific reason to do so.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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17. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: "Patrick Karp" <pkarp@conwaycorp.net>
Date: Thu, 7 Nov 2002 07:41:39 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106035-2002.11.07-08.25.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Its called American greed! I'm proud to be an American don't get me
wrong.   However When you think that this is a hobby that does allot
of community service, the folk that charge $50-$60 and higher to use
their program is putting a big financial burden on the folks that just
want to participate. There is something about the fact that it is
against the law for me to make a dime with any of this software and
they are trying to make $50,000 to $60,000 with it. Although I don't
fully agree with your Open source idea. I do feel these programmers
should contribute (They may in ways we don't see) to the hobby instead
of making a buck from it.   Thanks to open source and UIview there is
still options available to everyone. 8)
----- Original Message -----
From: "max" <mxd@wilder.net>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Thursday, November 07, 2002 2:16 AM
Subject: [aprsspec] OT open source, was: How widely implemened is APRS
Compressed format?

> [m:.x:.d:.] We7U said to someone else:
>
> > If you want to develop something for which you can charge a pretty
> > penny and you don't want them to see what's "behind the curtain",
> > I'd suggest you learn what you can from the code and spec, extract
> > the algorithms, then code it up from scratch.
>
> [m:.x:.d:.] I'd add that if you do this - since you won't let your
code
> be free (as in speech) - consider contributing to the community that

> helped you create your program (by sharing their code with you) by
> giving some of the profits back to projects that help advance open
> source.
>
> I'd suggest things like gnome (http://www.gnome.org/friends/), or
> KDE (http://www.kdeleague.org/contribute.php).
>
> Not using linux? Well, still consider helping people who share code.
GNU
> is pretty platform independent. (
> https://agia.fsf.org/mp/order.py?make-donation=1)
>
> <soapbox>
>
> as an aside - and I'm not pointing to anyone in particular - I find
it
> very silly that people in the amateur radio community don't "get"
the
> open source philosophy more readily.
>
> People sharing code means more people see code, learn how to code
> better, and don't re-invent the wheel every time. This leads to more
and
> better software. Rinse. Repeat. Open Source is automatic elmering.
But,
> elmering has fallen out of fashion, I think....
>
> I'm amazed that no one has written and released a general APRS
parsing
> library. Everyone seems to do it from scratch. Why? Wouldn't the
> community be better served by creating a portable standard library
that
> could be easily used by others? Has it been tried? I've never been
able
> to find any record of such a thing. (by the way, if you want to work
on
> a general APRS library, email me. I'm game.)
>
> IMHO part of the death of packet was the inability of the pbbs
authors
> to feel confident, or benevolent, enough to release their code so
other
> people could help move it forward. It's much more important to them
to
> collect a relatively paltry amount of money than to help advance and
> preserve their HOBBY for future generations. And for those that keep
the
> system closed and don't ask for money, I'm baffled. Why would anyone
> ever do this??
>
> Of course, there are exceptions. And, again, I'm not directing this
at
> anyone in particular. It just frustrates me to see literally
thousands
> of college kids sharing code and learning how to make better and
better
> software while our hobbies state of the art digital systems run - by
and
> large - on dos software that is barely maintained.
>
> So, i guess you can flame me. But, just stating an opinion....
>
> </soapbox>
>
> 73k6mxd
> max
>
>
>
>
> ---
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wa1lou@tapr.org
>
>
>

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18. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 7 Nov 2002 10:28:13 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106051-2002.11.07-13.13.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 7 Nov 2002, Roger Barker wrote:

> Given that it has turned into yet another open source discussion, I was
> tempted to kill-file the thread...

But if you killed all open-source discussions, you'd miss _all_ the
good technical issues. ;-)

> They are Mic-E, I *think* the original question was about compressed
> format (base 91).

Hard to tell. "Compressed" means one thing in the APRS Spec. It
means another in everyday usage. I'd normally consider "compressed"
to be _either_ Mic-E or the Compressed lat/lon as defined in the
spec. Too bad another name wasn't picked for the spec's
"Compressed" description.

> My experience suggests that it is not widely used. Also, because the
> level of support for compressed format varies between APRS clients, my
> recommendation to UI-View users is not to use it, unless they have a
> specific reason to do so.

And in the spirit of pushing the limits, I'd encourage all of the
Xastir users and anyone else using with APRS clients capable of it
to use compressed posits, compressed objects, compressed items, and
anything else that's in the spec and not well implemented across all
clients. That might encourage the authors to get off their duffs
and implement what's in the spec.

Please note that Xastir doesn't implement everything in the spec yet
either, so I'm thumbing my nose at our project as well. ;-)

Obligatory Open-Source: I'm _for_ open-source. I release sources
under GPL, BSD-style licenses, and in the public-domain. I also
have some things I don't publish because I intend to make money on
them, or because they could cause harm if released to the general
populace and somebody had a mean streak in them. I'm not against
making money with software. Some projects make sense to do that
with, some don't. Anyone who claims that one way is the only/right
way isn't seeing the whole picture.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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19. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: Roger Barker <roger@peaksys.co.uk>
Date: Thu, 7 Nov 2002 19:08:16 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106057-2002.11.07-13.52.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <Pine.LNX.4.33.0211071014350.1414-100000@wapiti.tc.fluke.com>
, Curt Mills, WE7U <hacker@tc.fluke.com> writes
>On Thu, 7 Nov 2002, Roger Barker wrote:
>
>> Given that it has turned into yet another open source discussion, I was
>> tempted to kill-file the thread...
>
>But if you killed all open-source discussions, you'd miss _all_ the
>good technical issues. ;-)

It's mind-numbingly BORING, and it's incredibly negative to turn one
topic after another into a discussion of what amounts to a religion.
(IMHO, of course ;-)

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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20. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: "isi" <rcarter@isi.com>
Date: Thu, 7 Nov 2002 14:44:01 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106062-2002.11.07-14.27.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This sounds like religion to me ;)

> It's mind-numbingly BORING, and it's incredibly negative to turn one
> topic after another into a discussion of what amounts to a religion.
> (IMHO, of course ;-)

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21. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: Jeff King <jeff@aerodata.net>
Date: Thu, 7 Nov 2002 18:20:04 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106082-2002.11.07-18.04.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 7 Nov 2002 17:52:46 +1100, Darryl Smith wrote:

>The reason that base 91 was used was
>for accuracy, but for the minor use a full NMEA string is better
>used.

Base 91 was used, I believe, so in the late 1990's so we all would be able to
see printable characters on our screen. Go figure.

The "compressed' part of the name means it is a terse positional format,
which it is, especially considering it gives better accuracy then the
standard format or MIC-E. With SA being off, and the introduction of WAAS, we
sorely need something like this.

NMEA can give the accuracy but it is very verbose.

As an aside, since the "compressed format" is not widely supported, I wonder
how many authors would be willing to support a new protocol (not part of the
APRS-SPEC) that is designed to be both computer friendly, accurate, and
terse? Even using something as simple as BCD, you could get two digits per
byte and very easy to parse and integer friendly.

I seem to recall UI-View went off the beaten path developing their own
protocol. I wonder if they addressed this?

-Jeff

```
---
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```

22. [aprsspec] Re: How widely implemened is APRS Compressed format?

```
From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 7 Nov 2002 15:24:45 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106083-2002.11.07-18.10.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

On Thu, 7 Nov 2002, Jeff King wrote:

> On Thu, 7 Nov 2002 17:52:46 +1100, Darryl Smith wrote:
>
> >The reason that base 91 was used was
> >for accuracy, but for the minor use a full NMEA string is better
> >used.
>
> Base 91 was used, I believe, so in the late 1990's so we all would be able to
> see printable characters on our screen. Go figure.

I would think that we could get away from the "printable"
requirement these days. It'd be a big win if so.

> The "compressed' part of the name means it is a terse positional format,
> which it is, especially considering it gives better accuracy then the
> standard format or MIC-E. With SA being off, and the introduction of WAAS, we
> sorely need something like this.

Yes! I sometimes uses compressed objects/items just so that I can
have precise positioning of the darn things. If I don't, they jump
to one of the standard APRS grid positions. Very annoying.

> As an aside, since the "compressed format" is not widely supported, I wonder
> how many authors would be willing to support a new protocol (not part of the
> APRS-SPEC) that is designed to be both computer friendly, accurate, and
> terse? Even using something as simple as BCD, you could get two digits per
> byte and very easy to parse and integer friendly.

If at least preliminary agreement on this could be made, Xastir
would certainly implement it.

```
--
Curt Mills, WE7U                    hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto:    A tax on people who are bad at math!"
"Windows:  Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me:  I picked the coordinate system!"


---
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```

23. [aprsspec] Re: How widely implemened is APRS Compressed format?

```
From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 7 Nov 2002 20:35:08 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106091-2002.11.07-20.18.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

On Wed, 6 Nov 2002, Darryl Smith wrote:

> How widely implemented is the APRS compressed format. I want to do some
> decoding in a PIC and it seems to me that dividing by 91, and then
> converting from decimal degrees to degrees with decimal minutes may be
> outisde the capabilities of the IC.

Much easier to do it with the Mic-E format. I designed that format to be
simple bit manipulation... trivial in a PIC...

Bob

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24. [aprsspec] RE: How widely implemened is APRS Compressed format?

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Fri, 8 Nov 2002 12:38:57 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "'APRS Spec Discussion List'" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106092-2002.11.07-20.23.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The MIC-E is trivial apart from the degrees in the TO CALLSIGN having a
protocol bug where 0-9 are 0x30->39; A-J are 0x41-4A and P-Y are
0x50-59. So much easier if it was O->X as the characters... Then you
just need to do a bitwise and to get rid of the message fields... Or the
N/S fields...

Darryl

Darryl Smith, VK2TDS POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

-----Original Message-----
From: Bob Bruninga [mailto:bruninga@usna.edu]
Sent: Friday, 8 November 2002 12:35 PM
To: Darryl Smith
Cc: APRS Spec Discussion List
Subject: Re: [aprsspec] How widely implemened is APRS Compressed format?

On Wed, 6 Nov 2002, Darryl Smith wrote:

> How widely implemented is the APRS compressed format. I want to do
> some decoding in a PIC and it seems to me that dividing by 91, and
> then converting from decimal degrees to degrees with decimal minutes
> may be outisde the capabilities of the IC.

Much easier to do it with the Mic-E format. I designed that format to
be simple bit manipulation... trivial in a PIC...

Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

25. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: Bob Bruninga <bruninga@usna.edu>
Date: Thu, 7 Nov 2002 22:42:40 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106112-2002.11.07-22.26.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Thu, 7 Nov 2002, Darryl Smith wrote:

> MIC-E is fairly easy to impliment... Base 91 is much harder as it gives
> you a result that is 380926 points per degree latitude, or 190463 points
> per degree longitude.

But those integers were very carefully chosen so that all the math can
still be done with single precision integers (16 bit) (as I do in
APRSdos). If you want to retain the 1 foot precision, you need double
precision, but by dividing by a constant, you can do it all in single
precision and still get posits to the nearest .01 minute (just like
standard APRS formats)...

Id have to look up the details, but it was easy...

Bob, WB4APR

Id still go with Mic-E as the simplest and 100% fully implemented
version...

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26. [aprsspec] OT open source, was: How widely implemened is APRS Compressed format?

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Fri, 8 Nov 2002 18:11:32 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106144-2002.11.08-01.55.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Max and Others...

Thanks to all those who have answered questions on the APRS spec. It has
been much apreciated. I am so glad that the spec is there and is so well
written.

Since I was the one that the message from Curt was directed at about
open source, and I commented that I was unable to use the GPL for
various reasons, I have decided to comment. I know this is not an attack
on me, but I think some things need to be said.

>[m:.x:.d:.] I'd add that if you do this - since you won't let your
>code be free (as in speech) - consider contributing to the community
>that helped you create your program (by sharing their code with you) by

>giving some of the profits back to projects that help advance open
source.

Personally I don't think that it would be appropriate for me to be
supporting Open Source in lieu of opening the code up. Most of the ideas
are from Ham Radio, so if I were to contribute, I would have to
contribute to a Ham Radio organisation. After all, the open source
people have done exactly zero to help me with this project - not the
tools, spec, ideas, etc.

So I make a donation to TAPR - and in a way that TAPR needs most - in my
time. I am not sure if any of you realise this, but I am now on the
board of TAPR - as of the DCC in denver. I live in Sydney, Australia.
Even to get to LA is a horrible 14 hour flight in a cramped 747. And I
have made a commitment to be an active board member of TAPR, attending
the board meetings a great personal cost to me.

I have never in my life seen a comment suggesting that PacComm or
Kantronics should be opening their source code and giving it away,
although I am sure that it has been said. I see that it is OK for them
to keep their hard work closed source. After all it is their business.

When I realsed the software to convert DXF files to MAP files for
WinAPRS, I didn't release the source, but I made the software free. The
wrong people would have needed to pay in order to use the software - the
people who do things rather than the people who use things. I made the
software available to anyone who needed it, but mostly changed the code
as required. I recently opened the source too...

I have been part of the LINUX community longer than anyone I can think
of, apart from LINUS himself. I was one of the few hundred members of
the MINIX mailing list when he released LINUX. I love LUNUX, and run it
for servers. I am just as proud that I spend more time on my Windows XP
laptop.

There is no requirement in Ham Radio to 'Get' the open source
philosophy. I remember hearing Lyle Johnson talking about Ham Radio
being the NATIONAL PARK OF WIRELESS. Funny thing is that you must PAY to
get in to many National Parks. Access is FREE, just that you have to
pay.

At this point I should also say what I do for a living. I am self
employed - as a consultant engineer. I am strugling to make a living for
myself - and so I need to make every cent count. If I can write some
software and develop some hardware and sell it, at a price that is
reasonable then there is nothing wrong with that.

>I'm amazed that no one has written and released a general APRS parsing
>library. Everyone seems to do it from scratch. Why? Wouldn't the
community
>be better served by creating a portable standard library that could be
>easily used by others? Has it been tried? I've never been able to find
>any record of such a thing. (by the way, if you want to work on a
general
>APRS library, email me. I'm game.)

That would be fantastic. You just need to make sure that the licenses is
appropriate, and will allow the software to get used. There is cheap
commercial software out there (like UI-View) that would have great
troubles if they wanted to use a GPL'ed license code in their software
[I have lost count of how many copies of UI-View I have registered just
so I can pay roger some more for his software :-)]. The license would
need to be open so that modifications to the parsing code were public
regardless, but that the resulting application could be sold without
restriction.

>From Curt
>Although I don't fully agree with your Open source idea. I do feel
these
>programmers should contribute (They may in ways we don't see) to the
hobby instead
>of making a buck from it.   Thanks to open source and UIview there is
>still options available to everyone. 8)

Programmers do contribute - by writing software.

>Obligatory Open-Source: I'm _for_ open-source. I release sources
under
>GPL, BSD-style licenses, and in the public-domain. I also have some
things
>I don't publish because I intend to make money on them, or because they
could
>cause harm if released to the general populace and somebody had a mean
streak
>in them. I'm not against making money with software. Some projects
make sense
>to do that with, some don't. Anyone who claims that one way is the
only/right
>way isn't seeing the whole picture.

Interstingly, there is no such thing as software placed into the PUBLIC
DOMAIN - especially in the USA where Sonny Bono managed to extend the
Copyright Act... The only way for anything to enter public domain is for
the copyright to extinguish. There was an interesting article on that in
the Linux Journal - October or november just inside the back cover.

Anyway that is too long an email...

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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27. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: "Curt Mills, WE7U" <archer@eskimo.com>
Date: Fri, 8 Nov 2002 08:14:57 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>,
        "Mills, Curt, WE7U" <archer@eskimo.com>,
        "Curt, WE7U Mills" <hacker@tc.fluke.com>
Message-ID: <LYR11589-106180-2002.11.08-10.43.24--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 8 Nov 2002, Darryl Smith wrote:

> Since I was the one that the message from Curt was directed at about
> open source, and I commented that I was unable to use the GPL for
> various reasons, I have decided to comment. I know this is not an attack
> on me, but I think some things need to be said.
>
> >[m:.x:.d:.] I'd add that if you do this - since you won't let your
> >code be free (as in speech) - consider contributing to the community
> >that helped you create your program (by sharing their code with you) by
>
> >giving some of the profits back to projects that help advance open
> source.

Wait a minute, I didn't say any of that! I think it was someone named
Max?

> >I'm amazed that no one has written and released a general APRS parsing
> >library. Everyone seems to do it from scratch. Why? Wouldn't the
> community
> >be better served by creating a portable standard library that could be
> >easily used by others? Has it been tried? I've never been able to find
> >any record of such a thing. (by the way, if you want to work on a
> general
> >APRS library, email me. I'm game.)

Again. Not me!

> >From Curt
> >Although I don't fully agree with your Open source idea. I do feel
> these
> >programmers should contribute (They may in ways we don't see) to the
> hobby instead
> >of making a buck from it.   Thanks to open source and UIview there is
> >still options available to everyone. 8)

Again. Not me!

> Programmers do contribute - by writing software.
>
> >Obligatory Open-Source: I'm _for_ open-source. I release sources
> under
> >GPL, BSD-style licenses, and in the public-domain. I also have some
> things
> >I don't publish because I intend to make money on them, or because they
> could
> >cause harm if released to the general populace and somebody had a mean
> streak
> >in them. I'm not against making money with software. Some projects
> make sense
> >to do that with, some don't. Anyone who claims that one way is the
> only/right
> >way isn't seeing the whole picture.

Now that was me, but it was kind of a P.S. at the end of an on-topic
message and wasn't intended to get sucked off separately into this
thread.

I'm an open-source developer, but I'm not quite as in-your-face
as some of the others. I just keep nudging here and there. ;-)

Curt, WE7U.   archer@eskimo.com
http://www.eskimo.com/~archer
  Lotto: A tax on people who are bad at math. - unknown
Windows: Microsoft's tax on computer illiterates. - WE7U.

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28. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: James Jefferson <jjeffers@aprsworld.net>
Date: Fri, 8 Nov 2002 10:10:03 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106187-2002.11.08-10.52.59--lyris.aprsspec#tapr.org@lists.tapr.org>

Rendered body type: text/plain

On Friday 08 November 2002 04:14 pm, Curt Mills, WE7U wrote:
> > >I'm amazed that no one has written and released a general APRS parsing
> > >library. Everyone seems to do it from scratch. Why? Wouldn't the
> >
> > community
> >
> > >be better served by creating a portable standard library that could be
> > >easily used by others? Has it been tried? I've never been able to find
> > >any record of such a thing. (by the way, if you want to work on a
> >
> > general
> >
> > >APRS library, email me. I'm game.)

There are general purpose APRS parsing programs. People wrote them from scratch because there weren't any. I can think of at least three. XAstir. Aprsdec. and my aprsworld parser. Pulling the parsing routines out of XAstir and my parser is almost trivial, and I haven't tried aprsdec but I suspect it would be too!

-Jim KB0THN

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29. [aprsspec] General APRS library proposal (of sorts..)

From: "max" <mxd@wilder.net>
Date: Fri, 8 Nov 2002 09:10:49 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106189-2002.11.08-11.54.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> On Friday 08 November 2002 04:14 pm, Curt Mills, WE7U wrote:

[m:.x:.d:.] Actually, curt didn't write this. I did.

> > > >I'm amazed that no one has written and released a general APRS
> parsing
> > > >library. Everyone seems to do it from scratch. Why? Wouldn't the
> > >
> > > community
> > >
> > > >be better served by creating a portable standard library that
could
> be
> > > >easily used by others? Has it been tried? I've never been able to
> find
> > > >any record of such a thing. (by the way, if you want to work on a
> > >
> > > general
> > >
> > > >APRS library, email me. I'm game.)
>
> There are general purpose APRS parsing programs. People wrote them
from
> scratch because there weren't any. I can think of at least three.
XAstir.
> Aprsdec. and my aprsworld parser. Pulling the parsing routines out of
> XAstir
> and my parser is almost trivial, and I haven't tried aprsdec but I
suspect
> it
> would be too!

[m:.x:.d:.] I stand (semi) corrected. There are programs, and they include parsers. What I'm talking about is a general purpose _stand alone_ parsing library that can be included, either via linking (libaprs.so, libaprs.dll, anyone?) or source inclusion.

Aprsdec is a perfect example of a well developed parser, but to use it effectively I'd be forced to write in perl. It's not general purpose. Your aprsworld parser is well developed, but still doesn't quite fit the bill as general purpose. Its designed to parse and stuff into a database. Xastir has a similar issue, its parsing is fully intertwined with the application. After looking at the code and thinking about how I would make it generic, we may have different ideas as to what "trivial"

means.

i'd like to seriously propose that we create a parsing library that has
the following characteristics:

1> portable. This means not only that it will run on any (reasonable)
platform, but can be used from most languages. A linkable library is
probably the key here, although the ability to do source inclusion is a
plus.

2> generic. Doesn't make any presumptions beyond being handed data and
handing parsed data back. No dealing directly with a tnc or with tcp
streams. No mucking about with databases or files. No reliance on
application provided i/o.

3> useable. As a part of developing the library, creating stub
classes/functions so it could be a drop in replacement for existing
parsing routines inside programs. So, for instance, if I decided that
I'd like to link to this library out of xastir, the library source
should include stubs to make that possible. Oh, this is probably
non-trivial. :-)

4> documented. While this wouldn't be a reference implementation, it
should be documented clearly against the spec. not surprisingly, aprsdec
does an incredible job of this, we should emulate that work.

5> free and open. You know what I mean.

There. Its more of an intimation to a proposal than an actual proposal,
but you get my drift. I'm willing to work on it, but not alone - and not
if this community doesn't see a need.

K6mxd
Max

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30. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Fri, 8 Nov 2002 09:21:58 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106190-2002.11.08-12.07.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 8 Nov 2002, James Jefferson wrote:

> There are general purpose APRS parsing programs. People wrote them from
> scratch because there weren't any. I can think of at least three. XAstir.
> Aprsdec. and my aprsworld parser. Pulling the parsing routines out of XAstir
> and my parser is almost trivial, and I haven't tried aprsdec but I suspect it
> would be too!

You can go to http://sourceforge.net and type in "APRS" in the
search box. You'll find some C++ class libraries, some Java stuff,
Xastir, APRSWorld, and others.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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31. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: Bill Vodall - WA7NWP <wa7nwp@yahoo.com>
Date: Fri, 08 Nov 2002 11:52:49 -0800

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106205-2002.11.08-14.36.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 06:11 PM 11/8/02 +1100, Darryl Smith wrote:

>I have never in my life seen a comment suggesting that PacComm or
>Kantronics should be opening their source code and giving it away,
>although I am sure that it has been said. I see that it is OK for them
>to keep their hard work closed source. After all it is their business.

I guess I'll have to say it more often. I've long suggested that Kantronics would sell more units if they released either the full source or an SDK for their KPC-3's. Amazing little boxes but the existing software, as good as it is, isn't what it could be.

One of these months somebody will have time to start up an open source project either for the Kantronics or stock TNC-2's and we'll finally be able to make some good progress on the basic client and node systems.

73,
Bill - WA7NWP

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32. [aprsspec] RE: OT open source, was: How widely implemened is APRS Compressed format?

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Sat, 9 Nov 2002 07:02:04 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "'APRS Spec Discussion List'" <aprsspec@lists.tapr.org>,
        "'Curt, WE7U Mills'" <hacker@tc.fluke.com>
Message-ID: <LYR11589-106207-2002.11.08-14.46.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

G'Day All...

I need to appologise to Curt for the impression that he made comments that he clearly did not make. That was not my intention. Curt has at all times been very low-key with his suggestions on the use of open source software.

What I was intending to say was that low key comments by him and others were taken and conciderably extended. Carefully examining the area at the start of the first quoted area does reveal [M.X.D] or the last three letters of Max's call.

Where I really did stuff up was the following paragraph from "Patrick Karp" <pkarp@conwaycorp.net> where I wrongly attribited it... Sorry.

>> >From Curt
>> >Although I don't fully agree with your Open source idea. I do feel
>> these
>> >programmers should contribute (They may in ways we don't see) to the
>> hobby instead
>> >of making a buck from it.   Thanks to open source and UIview there
is
>> >still options available to everyone. 8)
>
>Again. Not me!

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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33. [aprsspec] Re: How widely implemened is APRS Compressed format?

From: Gerry Creager <gerry.creager@tamu.edu>
Date: Wed, 06 Nov 2002 18:59:06 -0700
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106208-2002.11.08-15.02.03--lyris.aprsspec#tapr.org@lists.tapr.org>
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No, but any changes to the code fragments that were used... note the
distinction... must be available, and by convention the source is
distributed.

Open Source is not a guard against private enterprise. It does remove
some of the more restrictive concerns about licensing and subsequent
source distribution, and does attempt to keep those elements designated
for full release stay fully available.

gerry

Bill Vodall - WA7NWP wrote:
>>The Xastir source code is freely available under the GPL license and
>>written in C.
>
>
> Once you include it directly in your software, you're required to
> release your source code. No?   The poison pill principle.
>
> Maybe it would be possible to use code on a non-GPL basis with permission
> from authors of individual sections of XASTIR.
>
> Bill - WA7NWP
>
>
>
> ---
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--
Gerry Creager -- gerry.creager@tamu.edu
Network Engineering -- AATLT, Texas A&M University
Office: 979.458.4020 FAX: 979.847.8578
Cell: 979.229.4301   Pager: 979.228.0173

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34. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: Jeff King <jeff@aerodata.net>
Date: Fri, 8 Nov 2002 15:52:22 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106211-2002.11.08-15.36.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 08 Nov 2002 11:52:49 -0800, Bill Vodall - WA7NWP wrote:

>One of these months somebody will have time to start up an open
>source
>project either for the Kantronics or stock TNC-2's and we'll finally
>be able
>to make some good progress on the basic client and node systems.

Already done on the TNC2. thenet and X1J node code is open source. Also, APRS
UI-DIGI was based on nordlink TNC code, but source was never released. He
appears to be in violation of the nordlink agreement by not releasing but
don't quote me.

http://www.nordlink.org/eng/index.htm

-Jeff

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35. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: Bill Vodall - WA7NWP <wa7nwp@yahoo.com>
Date: Fri, 08 Nov 2002 14:12:05 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106215-2002.11.08-16.55.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 03:52 PM 11/8/02 -0500, Jeff King wrote:

>On Fri, 08 Nov 2002 11:52:49 -0800, Bill Vodall - WA7NWP wrote:
>
> >One of these months somebody will have time to start up an open
> >source
> >project either for the Kantronics or stock TNC-2's and we'll finally
> >be able
> >to make some good progress on the basic client and node systems.
>
>Already done on the TNC2. thenet and X1J node code is open source.

I know. It might be a good start. The problem isn't the source - it's the
development environment.   Bet you a cold one of your favorite variety
you can't compile the source to create a stock X1J ROM image.

Considering the questionable birth of X1J to start with I'd like to get something
going from a clean beginning. I think the source for a KISS implementation
is available - that's where I'd start.

>Also, APRS
>UI-DIGI was based on nordlink TNC code, but source was never released.
>appears to be in violation of the nordlink agreement by not releasing but
>don't quote me. http://www.nordlink.org/eng/index.htm

Give me two cold ones and I'll say more of the same.

Bill - WA7NWP

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36. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: Jeff King <jeff@aerodata.net>
Date: Fri, 8 Nov 2002 17:56:14 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106217-2002.11.08-17.40.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 08 Nov 2002 14:12:05 -0800, Bill Vodall - WA7NWP wrote:

>Considering the questionable birth of X1J to start with

Netrom (software 2000) was written in assembler, X1J was written in C by a
englishman. What is questionable here? I take all the gossip from the late
80's with a grain of salt. Software 2000 left the amateur scene year's ago...
Nordlink (of germany) is still involved and actually contributing much.

I thought the whole idea of open source was to share? Why throw away all
their experience and start with KISS... which if you read Phil Karn's paper
KISS was a kludge to begin with.

-Jeff

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37. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: Bill Vodall - WA7NWP <wa7nwp@yahoo.com>
Date: Mon, 11 Nov 2002 11:47:59 -0800

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106582-2002.11.11-14.31.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

At 05:56 PM 11/8/02 -0500, Jeff King wrote:

> >Considering the questionable birth of X1J to start with
>
>Netrom (software 2000) was written in assembler, X1J was written in C by a
>englishman. What is questionable here?

I was going to write:

Nothing!

Software 2000 wrote Netrom.

Some folks disassembled it. Changed the order of some function parameters and released the source code. Software 2000 wisely left the amateur market for greener pastures where they would be rewarded for their efforts. That's good business - and a loss for Amateur radio.

Some folks in Arizona supported the released TheNet software for a while.

Then Dave, G8KBB, picked up on the TheNet code and supported it for a few years under the name X1... I think that was for eXperimental release 1 of a new TheNet code. His last release was X1 version J - thus X1J.

Some of Dave's additions were in C. The core is still the basic TheNet assembly.

Now, after a bit of web research I have to take back the "!" from Nothing. I don't believe their's any question that there was an original release of source from a disassembled Netrom.

Following this thread for some interesting discussion:

http://www.mail-archive.com/linux-hams@vger.rutgers.edu/msg00393.html

How that relates to the release of TheNet Version 1.0 source is a bit fuzzy and certainly not worth the effort do spend much time researching nor to be fully discussed yet again here.

Once again the "Vector Board" file archive showed up in a search for old code. http://www.vectorbd.com/bfd/thenet/

It appears the compile environment isn't as obscure as I thought. Should be able to come up with an old Microsoft C80 compiler and M80 assembler around here somewhere. The peephole optimizer might be a bit tricker to find, but if we don't try to shoehorn in all the features, it might not be necessary to go to the dual bank switching trick which will simplify things a lot.

What ever happens with this code branch, it'll forever carry the ghost of Software 2000.

> Software 2000 left the amateur scene year's ago...
>Nordlink (of germany) is still involved and actually contributing much.

Which doesn't change the reason that Software 2000 left the amateur scene.

>I thought the whole idea of open source was to share?

Some share more then others. Which is terrific if that's what one chooses to do. To have your efforts shared by others to your personal detriment is not a good thing. We see this today. Notice the lack of software coming from both Paccomm and Kantronics? Maybe if there were less shared ROMS in digi's and TNC's out there we'd be seeing new and better software.

Also read Steve's comment on why the source for Findu isn't open. It's down a couple paragraphs at http://www.findu.com/. He's right on!

Just because it's essentially free to copy (steal) software, doesn't make it cheap to development and support. It takes a lot of time to do it right and that's expensive in the commercial world. It's even expensive in the GNU world. Folks put in many hours doing some good work. It's a great thing that they donate that effort.

In the real world you pay for software support and updates on a regular basis. Successful organizations don't complain about that - they're happy for it. It provides them with new and better tools.

>Why throw away all
>their experience and start with KISS... which if you read Phil Karn's paper
>KISS was a kludge to begin with.

It's simple, it's universal and it works. The disadvantage of KISS in a TNC environment is
usually overshadowed by many other system parameters. That applies even more so in the
APRS network which is glowing example of what can be done using simple kludges.

Here's some packet stats from one of my systems what has been up just 70 days.
Add them up. That's close to two million packets. Not bad for using the kludge.
(No, this isn't APRS either...)

```
ax0     RX packets:730019 errors:0 dropped:0 overruns:0 frame:0
           TX packets:824784 errors:0 dropped:0 overruns:0 carrier:0

ax1     RX packets:285096 errors:0 dropped:0 overruns:0 frame:0
           TX packets:59894 errors:0 dropped:0 overruns:0 carrier:0

ax2      RX packets:0 errors:0 dropped:0 overruns:0 frame:0
           TX packets:59817 errors:0 dropped:0 overruns:0 carrier:0
```

Bottom line. We will have more and better software if we respect those
folks developing it. Either by respecting the GNU license or by paying
for what we use from folks in business.

>-Jeff

73,
Bill - WA7NWP

PS. To keep this at least a microBit on topic, the plain text nature of the current
APRS feed is a good thing. Save the compressed binary transport for the next
generation where it can be part of a clean rewrite.

PPS. Another current example of involuntary software sharing. There are now two
commercial spinoffs of Byon's Tiny Trak using "shared" source and utilities.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

38. [aprsspec] Re: OT open source, was: How widely implemened is APRS Compressed format?

From: Jeff King <jeff@aerodata.net>
Date: Mon, 11 Nov 2002 19:54:54 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-106618-2002.11.11-19.39.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bill:

I'm confused. You suggest a open source project for the TNC2 or other TNC's
might be a good thing, and now are slandering Europeon packet radio
organizations as well as apparently condemning the whole open source
movement.

Could you have been trolling here?

No matter, I'll bite a little.

First, do we agree that Open source and theft are not the same thing? I'm not
sure if you understand the difference. I do, and understanding this is
fundamental to any discussion.

On Mon, 11 Nov 2002 11:47:59 -0800, Bill Vodall - WA7NWP wrote:

>Software 2000 wrote Netrom.

Yes, Software 2000 was a commercial company and the product was copyrighted.
Source code was not released although I have found evidence of some sharing
of ideas between Nordlink and software 2000.

>Some folks disassembled it.

That was stated. And based on what you said, Software 2000 had clear cause of

action against NordLink and the individuals involved. Remember, Software 2000 did not make the product Open Source. Yet for whatever reason, Software 2000 chose not to take legal action, to the best of my knowledge.

Yet here you are, 10 years later, beating the same slander drum against fellow amateurs. While it may or may not be true, I think the fact Software 2000 chose not to exercise its rights means third parties should not beat the slander drum 10 years later.

>Some folks in Arizona supported the released TheNet software for a
>while.

Jack Taylor n7oo. And your stating he is thief also?

>Then Dave, G8KBB, picked up on the TheNet code and supported it for
>a few years under the name X1...

And now we get to Dave, who I was referring to. So it is your opinion he is also a criminal?

And what about Marco Savegnago, the author of UI-Digi? APRS crook?

And how about the authors of NOS, who "stole" the netrom protocol (which apparently was copyrighted) and put it into NOS?

Bottom line, Software 2000 chose not to enforce it's rights under the law, and no evidence even exists of a tort letter being sent to Nordlink. At a minimum, this should have been done.

>Following this thread for some interesting discussion:
>
>http://www.mail-archive.com/linux-
>hams@vger.rutgers.edu/msg00393.html

The above was from ~1999, memories getting fuzzy. Here are some from around the time it all happened (1990):

http://groups.google.com/groups?selm=8906090737.AA00657%40ucbvax.Berkeley.EDU
http://www.cnunix.com/ftp/hamradio/thenet/thenet.flame
http://groups.google.com/groups?selm=719640550snx%40skyld.UUCP
http://groups.google.com/groups?selm=10857%40platypus.uofs.uofs.edu

>>Software 2000 left the amateur scene year's ago...
>>Nordlink (of germany) is still involved and actually contributing
>>much.
>
>Which doesn't change the reason that Software 2000 left the amateur
>scene.

What is the reason they left? (facts please) You do understand the reason NordLink developed TheNet is that Software 2000 had stopped supporting its product? At worst, the effort may have hastened their withdraw but they where already on the way out.

>>I thought the whole idea of open source was to share?
>
>Some share more then others.   Which is terrific if that's what one
>chooses to do. To have your efforts shared by others to your personal
>detriment is not a good thing.

No it is not. That is why there is a whole section of law called copyright, trademark and patents. Even a section of the U.S. government devoted to it.

Bill, I run a commercial company. I've also had designs and trademarks stolen. Often a simple threatening letter from my attorney stops it in its tracks. I'm not saying this is right, but by the same token, slandering someone in a public newsgroup is not right unless you are willing to go to the mat with them. Software 2000 chose to slander Nordlink on the newsgroups and at TAPR board meetings instead of doing it the right way. Regardless of the "truth" their methods tell me alot about the individuals.

>Notice the lack of software coming

>from both Paccomm and Kantronics? Maybe if there were less shared
>ROMS in digi's and TNC's out there we'd be seeing new and better
>software.

Again, you are confusing Open Source with theft. They are not the same thing. I'd suggest turning in some of those ROM thieves you know into Paccomm and Kantronics instead of using it as a argument against open source.

>Also read Steve's comment on why the source for Findu isn't open.
>It's down a couple paragraphs at http://www.findu.com/. He's right on!

In this country, anyone is free to flush their source code down a rathole if they so chose. Guess some of us are quite happy a fellow in Finland named Linus decided he didn't want to emulate this!

Maybe you should check this site out:

http://www.aprsworld.net

Put together originally by a high school student. He was so misguided he released it as open source. And for his punishment he was awarded a scholarship to college by the IEEE.

http://aprsworld.net/info/sponsors/

Some capitalists do DO open source.

>Just because it's essentially free to copy (steal) software, doesn't
>make it cheap to development and support.

Again, your confusing thief and open source. Of course it is not cheap, but some people who write source code for fun want their efforts to live on after them. Often it doesn't, but sometimes it does. But it is their choice.

>In the real world you pay for software support and updates on a
>regular basis.
>Successful organizations don't complain about that - they're happy
>for it. It provides them with new and better tools.

I think I spent about $5000 on software last year, close to $15,000 so far this year. Your point?

>>Why throw away all
>>their experience and start with KISS... which if you read Phil
>>Karn's paper KISS was a kludge to begin with.
>
>It's simple, it's universal and it works.

It is also from 1985. KISS is decoupled from the radio environment. Phil even mentions this. If your browse some of those netrom thieves sites in Europe you'll discover they have gone on to do variants of KISS addressing this called SMACK and 6pack and further have developed something called DAMA (from the NordLink thieves).

>Here's some packet stats from one of my systems what has been up
>just 70 days.
>Add them up. That's close to two million packets. Not bad for
>using the kludge.
>(No, this isn't APRS either...)

It is NOS of course. I used checksum KISS on all my NOS nodes. Makes a big difference. Still, I don't understand your point. You blast two million packets in the air, and you say "not bad"? A better metric would be how much actually data got sent on those 2 million packets.

>Bottom line. We will have more and better software if we respect
>those folks developing it. Either by respecting the GNU license or by
>paying for what we use from folks in business.

Of course. The people you are slamming long long ago left the scene so isn't it time to move on?

>PS. To keep this at least a microBit on topic, the plain text nature of the

>current APRS feed is a good thing.

In 1985 or 1990 it might have been. Today it is just plain inefficient and
what we have is not well suited for small microcontrollers.

>Save the compressed binary transport
>for the next generation where it can be part of a clean rewrite.

I wouldn't discourage anyone from doing this. APRS works on the principle
that you do something and then it gets implemented in the spec. If someone
wants to do a binary compressed format for ham AVL, I'd highly encourage it
as the spec does not move fast enough (and that is a whole other topic of
discussion).

>PPS. Another current example of involuntary software sharing.
>There are now two
>commercial spinoffs of Byon's Tiny Trak using "shared" source and
>utilities.

??

Again, there is a difference between theft and open source. Byon, as best I
can tell, released too much and didn't protect himself well enough. I'm sure
he has learned from this, but don't try and confuse the issues. The TinyTrak2
is a commercial product, not open source.

-Jeff

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39. [aprsspec] APRSPLUS

From: "Allen D. Alter" <n2radio@triton.net>
Date: Thu, 14 Nov 2002 22:21:46 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-107030-2002.11.14-22.03.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I am having problems with entering Lat/Lon. I converted to
dec. I still end up in someplace 1000 or more miles away

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40. [aprsspec] TAPR List Sponsorship

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Mon, 25 Nov 2002 09:37:40 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "TAPR Board of Directors" <tapr-board@lists.tapr.org>
Message-ID: <LYR11589-108440-2002.11.24-17.23.58--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

G'Day All

Thank you for reading this message. TAPR provides this mailing list
along with others as a service to their members and the Ham Radio
community in general. Providing this service and other services such as
our FTP site and the cost of developing new products like the Pic-E and
EasyTrak, costs money.

We are more than happy to provide these resources to the entire Ham
Radio community, but we do ask that you do concider joining TAPR. A good
way to see what we're up to is to take a look at the latest issue of our
quarterly journal, the _Packet_Status_Register_ which is available for
download at
http://www.tapr.org/PSR

Membership in TAPR is only US$20 regardless of whether you live in
Tuscon, Arizona, or Sydney, Australia. If you want to join, or if your

membership is coming up for renewal, please visit www.tapr.org on the
Web for details. Specifically you can go to the following page for
information
        http://www.tapr.org/tapr/html/Fmembership.html

Darryl Smith, VK2TDS
TAPR Board Member

P.S. I have recently joined the board as its first non-North American
board member. As part of my Board duties, I have agreed to have overall
responsibility for membership. If anyone has any questions or concerns
about membership or TAPR in general, please EMAIL me. I can also be
contacted by phone with prior arrangement

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
vk2tds@tapr.org | www.radio-active.net.au

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December 2002

Original source file: aprsspec.0212
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0212

1. [aprsspec] Authors Wanted for PSR and DCC...

```
From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Wed, 4 Dec 2002 17:05:40 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "TAPR Board of Directors" <tapr-board@lists.tapr.org>,
        "TAPR APRS Special Interest Group" <aprssig@lists.tapr.org>,
        "htaprs digest recipients" <htaprs@lists.tapr.org>,
        "aprs sig \(aprs sig\)" <aprssig@tapr.org>,
        "'APRS Spec Discussion List'" <aprsspec@lists.tapr.org>,
        "'TAPR PIC Development Special Interest Group'" <picsig@lists.tapr.org>,
        "TAPR Spread Spectrum Special Interest Group" <ss@lists.tapr.org>,
        "TAPR AO-16 APRS Special Interest Group" <ao16aprs@lists.tapr.org>
Message-ID: <LYR11589-109540-2002.12.04-00.51.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

G'Day

TAPR have decided to introduce some changes to support those members of TAPR who are putting time and energy into the various publications that TAPR puts out each year.

Three Month Membership Extension for Packet Status Register (PSR) Articles
---
--

>From the next issue of PSR, members who have articles published in the PSR magazine will have their membership of TAPR extended by three months. It is hoped that this will encourage members to write for the magazine. The deadline for articles for the next issue of PSR is mid-January. More information on submitting articles, and on obtaining copies of the magazine can be found on http://www.tapr.org/tapr/html/Fpsr.html

Six Month Membership Extension for Digital Communications Conference (DCC) Articles
---

>From the 2003 DCC, planned for somewhere in the Eastern USA, TAPR will be offering Six Month membership extensions for all members who have papers published in the proceedings. Whilst we would dearly love all authors of papers to attend the conference, we recognize that there are reasons that members cannot attend the conference - so the requirement is only on having your paper published. This is of course in addition to the complimentary copy of the DCC proceedings that each author is entitled to.

We are looking for papers on subject within the bounds of Digital Communications, as it applies to Ham Radio, on all levels. All you need is something to say. If you feel that you are unable to write a paper because you do not have the time, or writing a paper is outside your area of expertise, please contact me. I will attempt to find someone who will be able to help you with getting the paper written.

More details on the conference itself will be made available early in 2003, along with a formal call for papers. Until then you can examine the DCC area of the TAPR www site for details on past conferences by looking at http://www.tapr.org/dcc/

Darryl VK2TDS
TAPR Board Member

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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2. [aprsspec] Re: [aprssig] 16 bit (and larger) Telemetry

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 10 Dec 2002 08:45:23 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>,
<aprsspec@lists.tapr.org>
Message-ID: <LYR11589-110346-2002.12.10-08.30.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Looks perfect to me!
Bob

On Tue, 10 Dec 2002, Steve Dimse wrote:

> I'm involved in an APRS project that requires telemetry with greater
> precision than the 8 bits provided for in the APRS spec. This data will
> be transmitted using the "user defined" part of the spec.... I propose
> using the character T (telemetry) for the user character, and H and D
> (hex and decimal) for the format character.
> Examples:
>
> }TH243,AE,4F2,,12,0,FF
> }TD134.2,42,0,-23.3,0,
>
> As a teaser, I'll show an example of a prototype of a new telemetry cgi.
> This uses the Ploticus plotting package
> (http://ploticus.sourceforge.net)...a very powerful program with its own
> complex scripting language, but this prototype uses one of their
> "prefab" scripts, chron, which plots time on the x axis. It is limited
> to plotting a single line, obviously not good enough, I'll have to learn
> the scripting language, but this hints at what can be done:
>
> http://www.findu.com/cgi-bin/tele1.cgi?call=k9d9&last=72&param=1
> http://www.findu.com/cgi-bin/tele1.cgi?call=kj7az-6&last=72&param=2
>
> (param is which of the tele values to plot, in addition 0 is the transmitted
> sequence number, while -1 is the received sequence number).
>
> The final tele cgi will work on the original 8 bit format and either of
> the new ones automatically (i.e. it will sense the datatype and do
> conversions automatically, no need to specify the format).
>
> Comments encouraged! (and can someone post this on the aprsspec group,
> I'm not subscribed!)
>
> Steve K4HG
k

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3. [aprsspec] Re: 16 bit (and larger) Telemetry

From: Jeff King <jeff@aerodata.net>
Date: Tue, 10 Dec 2002 14:31:43 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-110388-2002.12.10-14.17.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

--- Original Message ---
From: "Jeff King" <jeff@aerodata.net>
To: TAPR APRS Special Interest Group <aprssig@lists.tapr.org>
Cc:
Sent: Tue, 10 Dec 2002 13:36:22 -0500
Subject: [aprssig] Re: 16 bit (and larger) Telemetry

>No comment other then I wouldn't go out of your way not to break the
>APRS
>spec (you said something about being in the user defined field,
>implying that
>you had to carry some payload you don't need). If you review the
>requests to
>the APRSSPEC over the years, you'll see a telemetry format was tops
>among

>them.
>
>Normally wouldn't suggest this to anyone, but your in a position to
>drive the
>spec/avoid the kludge and since you have a personal need, might as
>well kill
>two birds with one stone.
>
>However you chose to do it, good luck. I'm sure it will be useful.
>
>Jeff
>
>--
>Jeff King, jeff@aerodata.net on 12/10/2002
>
>
>On Tue, 10 Dec 2002 03:06:14 -0500, Steve Dimse wrote:
>>I'm involved in an APRS project that requires telemetry with greater
>>precision
>>than the 8 bits provided for in the APRS spec. This data will be
>>transmitted
>>using the "user defined" part of the spec. Rather than develop a
>>format specific
>>to this application, I am going to make it as general as I can, so
>>that the
>>findU tools I am writing to manipulate the data can be used by other
>>applications (thereby hopefully avoiding some requests for special
>>user-defined
>>formats).
>>
>>I'm bringing this up here because I'm open to suggestions, at least
>>up until the
>>first remote device is deployed. If you have ideas that would make
>>this more
>>uesful, please share them.
>>
>>The basic plan is for two different packets, one with positive hex
>>integers, the
>>other with base 10 numbers (which may be signed or unsigned, integer
>>or floating
>>point).
>>
>>The reason for two formats is that hex is easier for embedded
>>devices to encode
>>than decimal, and can also save a few bytes on ech packet, depending
>>on the
>>number and size of the values. However, it is hard to do negatives
>>in hex(when
>>there is not a set bit-length of the number...is FF a 16 bit 255 or
>>an 8 bit
>>-1?) and damn near impossible to do efficient, cross-platform
>>floating point.
>>
>>There is no official limit on the number of values in the packet
>>(there are
>>practical issues, but the format, and my code do not set the
>>limits), fields are
>>comma delimited, datapoints without values are represented by a true
>>empty field
>>(two consecutive commas or comma at the end of a line). I propose
>>using the
>>character T (telemetry) for the user character, and H and D (hex and
>>decimal)
>>for the format character.
>>
>>Note there is no timestamp or sequence number in this spec. An
>>individual user
>>is free to designate one of the fields for that function, but there
>>is no wasted
>>space for those who don't need it.
>>
>>Examples:
>>
>>}TH243,AE,4F2,,12,0,FF
>>
>>}TD134.2,42,0,-23.3,0,
>>
>>Again, this is under the user-defined part of the spec, so it is not
>>a matter

>>for the APRS WG (other than allocated the specific format
>>characters). If you
>>have a need not met by whatever we end up using, you can create at
>>different
>>format to meet your needs. As I say, I'm bringing this up now
>>because I would
>>like to have the spec and tools as general purpose as possible.
>>
>>As a teaser, I'll show an example of a prototype of a new telemetry
>>cgi. This
>>uses the Ploticus plotting package
>>(http://ploticus.sourceforge.net)...a very
>>powerful program with its own complex scripting language, but this
>>prototype
>>uses one of their "prefab" scripts, chron, which plots time on the x
>>axis. It is
>>limited to plotting a single line, obviously not good enough, I'll
>>have to learn
>>the scripting language, but this hints at what can be done:
>>
>>http://www.findu.com/cgi-bin/tele1.cgi?call=k9d9&last=72&param=1
>>http://www.findu.com/cgi-bin/tele1.cgi?call=kj7az-6&last=72&param=2
>>
>>(param is which of the tele values to plot, in addition 0 is the
>>transmitted
>>sequence number, while -1 is the received sequence number).
>>
>>The final tele cgi will work on the original 8 bit format and either
>>of the new
>>ones automatically (i.e. it will sense the datatype and do
>>conversions
>>automatically, no need to specify the format).
>>
>>Comments encouraged! (and can someone post this on the aprsspec
>>group, I'm not
>>subscribed!)
>>
>>
>>Steve K4HG
>>
>>---
>>You are currently subscribed to aprssig as: jeff@aerodata.net
>>To unsubscribe send a blank email to leave-aprssig-
>>18229V@lists.tapr.org
>>Questions regarding the SIG go to the SIG administrator:
>>wa1lou@tapr.org
>
>
>
>
>
>---
>You are currently subscribed to aprssig as: jeff@aerodata.net
>To unsubscribe send a blank email to leave-aprssig-
>18229V@lists.tapr.org
>Questions regarding the SIG go to the SIG administrator:
>wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

4. Discounted Cigs

From: "Admin" <admin@advertiger.com>
Date: Sun, 15 Dec 2002 21:58:07 +0100
To: lyris.aprsspec@tapr.org
Message-ID: <200212152058.OAA03849@tapr.org>
Rendered body type: text/plain

Dear Sir or Madam

If you are a smoker in the UK, or in the ROI, then we have something for you.

You are probably fed up with paying high prices for your cigarettes and tobacco. Take a look at what we

can do for you at
http://www.advertiger.com/bs/?E=b082ba8260f6eb4e891a3e2b03ffc961

We can send you, legally, by registered air mail, direct to your door, 4 cartons of cigarettes or 30 fifty gram pouches of rolling tobacco (all brands are available) from only 170 Euros - about 105 pounds - fully inclusive of postage and packing. Why pay more?

If you would rather not hear from us any more, this link will ensure that you are not bothered again.
http://www.advertiger.com/bs/off.php?E=b082ba8260f6eb4e891a3e2b03ffc961

Yours faithfully.
British Smokers

http://www.advertiger.com/bs/?E=b082ba8260f6eb4e891a3e2b03ffc961

w2yy987335ald

5. [aprsspec] APRS Spec

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Wed, 18 Dec 2002 20:03:54 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-111468-2002.12.18-03.49.47--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Minor Typo on Page 94 of the APRS Spec... Under Appendix 1 - APRS Data formats.

The table for AX-25 UI-Frame format lists the FLAG at the end of the packet being 2 bytes long. The correct number is 1, and it may be shared with the next packet

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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6. [aprsspec] APRS TOCALL Version Numbers

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 18 Dec 2002 13:36:02 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-111535-2002.12.18-13.22.31--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I am proposing to add APVxxx for IRLP, ILINK, ECHOLINK and any othe Voice over IP system if it needs to send out a node STATUS packet to its users.
 APVRxx is for IRLP
 APVLxx is for I-LINK
 APVExx is for ECHO link

Here is the current list of APRS TOcalls and Version nomenclature that I have updated. Previous one was Sept 2002.

 APA A-Filter, Alinco, etc
     APAFxx AFilter.
     APAGxx AGATE
     APAXxx AFilterX.
     APAHxx AHub
 APB Rabbit TCPIP microprocessors
 APC Windows CE, etc
     APCYxx Cybiko applications
 APD APRSd, etc
     APDTxx APRStouch Tone (DTMF)
 APE avail
 APF avail
 APG Gates, etc
 APH HamHud, etc
 API Icom, etc
     APICQx for ICQ
 APJ JavaAPRS,JeAPRS,etc
     APJAxx JavAPRS

```
     APJExx JeAPRS
 APK Kenwood, etc
     APK0xx THD7's
     APK1xx D700's
 APL Liunx applications
 APM MacAPRS, etc
 APN Network nodes, digis, etc
     APN3xx Kantronics KPC-3 rom versions
     APN9xx Kantronics KPC-9612 Roms
     APNAxx WB6ZSU's APRServe
     APNMxx MJF TNC roms
     APNPxx Paccom TNC roms
     APNDxx DIGI_NED
     APNUxx UIdigi
 APO APRSpoint
 APP pocketAPRS, etc
 APQ avail
 APR APR8xx APRSdos,etc
     APRDxx APRSdata, APRSdr
     APRKxx APRStk
     APRS   Generic, (obsolete. Digis should use APNxxx instead)
     APRXxx APRSmax
     APRTLM used my MIM's and Mic-lites, etc
     APRSTx APRStt (Touch tone)
 APS APRS+SA, etc
 APT TinyTrack
     APTTxx Tiny Track
     APT2xx Tiny Track II
     APTAxx K4ATM's tiny track
     APTWxx Byons WXTrac
     APTV for ATV/APRN and SSTV applications
 APU UIview, etc
     APU1xx UIview 16 bit applications
     APU2xx UIview 32 bit apps
     APU3xx UIview terminal program
 APV Voice over Internet  applications
     APVRxx is for IRLP
     APVLxx is for I-LINK
     APVExx is for ECHO link
 APW WinAPRS, etc
 APX Xaprs, Xastir, etc
 APY etc, Yeasu, etc
 APZ Experimental
     APZ0xx Xastir (old versions. See APX)
     APZPAD Smart Palm

Authors with similar alphabetic requirements are encouraged to share
their address space with other software.  Work out agreements amongst
yourselves and keep me informed.

de WB4APR, Bob



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```

January 2003

Original source file: aprsspec.0301
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0301

1. [aprsspec] Get Published and Extend Your TAPR Membership!

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Fri, 03 Jan 2003 08:52:25 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-113442-2003.01.03-08.40.29--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

TAPR members:

The editorial board of Packet Status Register (PSR, the quarterly Newsletter
of TAPR) is now soliciting articles, news items, etc. for the next issue of
the newsletter. Topics related to digital Amateur Radio will be given
preference and the editorial board reserves the right to determine what is
suitable for publication.

As a bonus, if your contribution is published in PSR, your TAPR membership
will be extended by 3 months.

E-mail your contributions to wa1lou@tapr.org ASAP because the deadline for
the next issue of the newsletter is January 26.

73,

Stan Horzepa, WA1LOU, PSR Editor

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2. [aprsspec] New member of the list

From: "Ciemon Dunville G0TRT" <g0trtlists@businessunmetered.com>
Date: Sat, 4 Jan 2003 09:22:46 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-113576-2003.01.04-04.09.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi all,

I've just joined the list... Ciemon (pronounced Simon) Dunville G0TRT; aged
35; living near Ipswich in the UK; licensed for 12 years; using APRS for
around 8 years; programming experience limited to a bit of C and Smalltalk.

So why have I joined the list? Well after so many years of taking, I thought
I'd try and give.

Almost 2 years ago now the first APRS spec was released, after a lot of hard
work. As time moves on and software is developed, maybe the protocol could
do with updating too. So I'm offering my services to help in whatever
way/shape/form I can. Be it writing any revisions to mediating any heated
debates that will inevitably occur if the spec is revamped.

So what are your thoughts?

73.. Ciemon G0TRT

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3. [aprsspec] How to set the server filter at logon.

From: "Roger Bille" <roger.bille@telia.com>
Date: Sat, 11 Jan 2003 10:48:55 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-114562-2003.01.11-04.33.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Dear developer,

The attached message was sent today to a few lists. There are 2 other methods to set the filter which are more target for you as developer if you want to enable the possibility to have a field in your applications where the users can enter their default filter definition and that is the passed to the server during connection/logon. They will then not need to send an APRS message initially. Of course can they send a message to change the filter at a later time.

Method #1
The server logon string is check for a filter keyword and anything after that is treated as a filter definition. The filter keyword must be the 8th argument. For example:

```
user SM5NRK pass 12345 vers Test 1.0 filter r/63/16/1000 t/wn
```

Method #2
The filter definition can also be sent in a comment line between the client and the server. The comment line must start with #. For example:

```
user SM5NRK pass 12345 vers Test 1.0
# filter r/63/16/1000 t/wn
```

73 de sm5nrk/Roger

==========

Dear all,

Introduction:
The APRS-IS full feed today have a lot of traffic and require a high bandwidth, in particular for the APRS-IS server sites, but also for some of you that connect that are only interested in the particular traffic. To accommodate this a number of servers have special regional feeds which filter the traffic. There are also some weather specific feeds available. But all these are setup according to what the server operator "thinks" will be good for the users. Now we can take this one step further.

Now will each of you be able to select what traffic you are interested in and the server will create a unique feed for you. There is great flexibility to construct your personal feed.

How does it work?
Pete Loveall AE5PL have written the APRS-IS server software javAPRSSrvr in java which is used by a number of servers. Pete has been kind to create some hooks into his server software so I have been able to write a filter add-on, javAPRSFilter (also in java). These 2 applications work together to provide this filtering. Status on the APRS-IS servers can be found here: http://ahubswe.net/aprs_stat.asp

You define the filter by doing the following:

1. Connect and logon to a filter enabled port on a server
2. Send an APRS message to the server requesting the filter you want

Filter commands
There are 4 different kinds of filters that can be used in any combination. Each filter is working independent and is additive to the feed. This mean if the filter finds a match it will be passed to you. The filter commands in the APRS message to the servers call is starting with the word 'filter' (without quotes) and each filter command is delimited by a single space. A message with just 'filter?' (without quotes) will return the current filter definition.

#1 Range filter
The range filter will pass all stations and their beacons, status, messages etc within a distance from a set location. It will also pass messages to stations within the filter and positions of the message sender even if they are outside the range. Up to 3 range filters can be used at the same time to extend the areas when you have problem to find a good circle match.

Syntax: r/lat/lon/dist [r/lat1/lon2/dist2 [[r/lat2/lon2/dist2]]

Where: r = range command

```
                lat = latitude in degrees (no decimals). Negative for south
                lon = longitude in degrees (no decimals). Negative for west
                dist = distance in kilometers from lat/lon.
                        I'm sorry we don't use miles here in Sweden ;-)

 Samples:       r/55/-4/600             This will pass all traffic for UK
                r/37/-81/1500   This will pass all east cost US traffic


 #2 Prefix filter
 The prefix filter will pass traffic based on if the sender□s call starts
with a specific pattern. Up to 10 patterns can be defined at the same time.

 Syntax:        p/p1/p2/p3... (up to 10)

 Where: p = prefix command
                p# = The prefix (starting) pattern

 Samples:       p/K             This will pass all traffic from stations starting with K
                p/SK/F  This will pass stations starting with either SK or F
                p/SM5NRK        This will pass all traffic from SM5NRK and any SSID at the end


 #3 Budlist filter
 The budlist filter will pass traffic based on exact match of the sender□s
call. Also the SSID is part of the exact match. If you want all SSID use
prefix filter above. Up to 10 calls can be defined at the same time (if they
can fit in a single APRS message).

 Syntax:        b/call1/call2/call3... (up to 10)

 Where: b = budlist command
                call# = The prefix (starting) pattern

 Samples:       b/SM5NRK                This will pass all traffic from SM5NRK without any SSID
                b/SM5NRK-5/SK5UM        This will pass all traffic from SM5NRK-5 and SK5UM


 #4 Type filter
 The type filter will pass traffic depending on the packet type. More than
one type can be defined in one single command.

 Syntax:        t/type

 Where: t = type command
                type = is one or more of the following letters
                        p = Position packets
                        o = Objects
                        i = Items
                        m = Message
                        n = NWS Weather
                        w = Weather
                        t = Telemetry
                        q = Query
                        s = Status
                        u = User-defined

 Samples:       t/p             This will pass all traffic with a position
                t/w             This will pass all weather traffic. For positionless
                                weather objects the corresponding position packet
                                will also be sent when it is next heard
                t/mos           This will pass all messages, objects and status traffic


 Remeber that the APRS message must start with the word filter and the the
commands.

 The above filters can be combined as explain above. Each filter will
however working independent of the others, for example:

        filter r/63/16/1000 r/55/-4/600 p/F b/AE5PL t/s

 The above filter will pass all traffic within Nordic (range#1) AND UK
(range#2) AND stations starting with F (prefix) AND from AE5PL (budlist) AND
all status traffic (type).


 Where to connect?
 This is up to each server operator if/when they will provide this type of
```

service. The following servers and ports have this enabled as far as I know.

        ahubswe.net:14580
        aprsca.net:14580
        aprseast.net:14580
        aprswest.net:14580

 I welcome any comments, suggestions and complains. I monitor the UI-View
and APRSSIG lists.

 73 and have fun
 Roger Bille/SM5NRK

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4. [aprsspec] PSR deadline coming soon!

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Sun, 19 Jan 2003 19:54:53 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-116143-2003.01.19-19.43.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Just a reminder: If you are interested in submitting an article for TAPR's
newsletter, Packet Status Register, the deadline is the 26th, so send me
your input ASAP.

73,

Stan, WA1LOU, PSR Editor

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5. [aprsspec] SCC Proposal [was:Symbols/Icons was something else]

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Thu, 23 Jan 2003 19:44:26 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec eMail Remailer <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-116875-2003.01.23-19.34.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

--- Excerpted from the APRS101.pdf file -----

APRS Data Extensions: a fixed-length 7-byte field may follow APRS position
data. This field is an APRS Data Extension. The extension may be...:

PHGphgd Station Power and Effective Antenna Height/Gain/Directivity

Power,   The 7-byet PHGphdg Data Extension specifies the
Effective Antenna   transmitter power, effective antenna height-above-
Height/Gain   average-terrain, antenna gain and antenna direc-
Directivity   tivity. APRS uses this information to plot radio
                     range circles around stations.

                     The 7 characters of this Data Extension are encoded
                     as follows:

                     Characters 1-3 PHG (fixed)
                     Character 4   p Power code
                     Character 5   h Height code
                     Character 6   g Antenna gain code
                     Character 7   d Directivity code

Example of the PHG Data Extension: PHG5132 (reference a table that is
                                              included in the spec)

Another example: =4903.50N/07201.75W#PHG5132

Modify the Protocol Spec to add a new Data Extension parameter called SCC

(Station Configuration Code). It is defined as:

o Starts with the sequence: "SCC" and is at least 6-bytes long
o Ends with either a " " or by virtue of being at the end of the frame
o There is no limit to how long this field can be
o This is a variable length field...not requiring that all stations
  fill-in all values.

SCC parameters include (in order of decreasing ability for the operator to
                        provide accurate information):
o 2-byte designation of frequency of operation
o 1-byte Network Personality designation
o 1-byte Power designation
o 1-byte Antenna Gain designation
o 1-byte Antenna Pointing Vector designation
o 1-byte Antenna Height (Above Mean Sea Level) designation
o 1-byte Antenna Height (estimated Height Above Average Terrain) designation

Empiracally: SSCbsnpgvmt
Examples of valid SCC's (with "real values" included):
SCCVK1NLAKP
SCCVK1NLAK
SCCVK1NLA
SCCVK1NL
SCCVK1N
SCCVK1

Below are examples of the first two variables (2-byte frequency designation and
1-byte Network Personality designation). I have ideas on the others, too...but
this is alot of information for folks to digest...so I'll stop there):

SCC = Field-flag

=== 2-byte designation of frequency of operation ===

b->(X)tra	(L)ow	(M)ed.	(H)igh	(V)ery	(U)ltra	(S)uper	(E)xtr
s	Low			High	High	High	High
|							
v							
0	3-kHz	30-kHz	300-kHz	3-MHz	30-MHz	300-MHz	3-GHz	30-GHz
A	4-kHz	40-kHZ	400-kHz	4-MHz	40-MHz	400-MHz	4-GHz	40-GHz
B	5-kHz	50-kHz	500-kHz	5-MHz	50-MHz	500-MHz	5-GHz	50-GHz
C	6-kHz	60-kHz	600-kHz	6-MHz	60-MHz	600-MHz	6-GHz	60-GHz
D	7-kHz	70-kHz	700-kHz	7-MHz	70-MHz	700-MHz	7-GHz	70-GHz
E	8-kHz	80-kHz	800-kHz	8-MHz	80-MHz	800-MHz	8-GHz	80-GHz
F	9-kHz	90-kHz	900-kHz	9-MHz	90-MHz	900-MHz	9-GHz	90-GHz
G	10-kHz	100-kHz	1-MHz	10-MHz	100-MHz	1-GHz	10-GHz	100-GHz
H	11-kHz	110-kHz	1.1-MHz	11-MHz	110-MHz	1.1-GHz	11-GHz	110-GHz
I	12-kHz	120-kHz	1.2-MHz	12-MHz	120-MHz	1.2-GHz	12-GHz	120-GHz
J	13-kHz	130-kHz	1.3-MHz	13-MHz	130-MHz	1.3-GHz	13-GHz	130-GHz
K	14-kHz	140-kHz	1.4-MHz	14-MHz	140-MHz	1.4-GHz	14-GHz	140-GHz
L	15-kHz	150-kHz	1.5-MHz	15-MHz	150-MHz	1.5-GHz	15-GHz	150-GHz
M	16-kHz	160-kHz	1.6-MHz	16-MHz	160-MHz	1.6-GHz	16-GHz	160-GHz
N	17-kHz	170-kHz	1.7-MHz	17-MHz	170-MHz	1.7-GHz	17-GHz	170-GHz
O	18-kHz	180-kHz	1.8-MHz	18-MHz	180-MHz	1.8-GHz	18-GHz	180-GHz
P	19-kHz	190-kHz	1.9-MHz	19-MHz	190-MHz	1.9-GHz	19-GHz	190-GHz
Q	20-kHz	200-kHz	2.0-MHz	20-Mhz	200-MHz	2.0-GHz	20-GHz	200-GHz
R	21-kHz	210-kHz	2.1-MHz	21-MHz	210-MHz	2.1-GHz	21-GHz	210-GHz
S	22-kHz	220-kHz	2.2-MHz	22-MHz	220-MHz	2.2-GHz	22-GHz	220-GHz
T	23-kHz	230-kHz	2.3-MHz	23-MHz	230-MHz	2.3-GHz	23-GHz	230-GHz
U	24-kHz	240-kHz	2.4-MHz	24-MHz	240-MHz	2.4-GHz	24-GHz	240-GHz
V	25-kHz	250-kHz	2.5-MHz	25-MHz	250-MHz	2.5-GHz	25-GHz	250-GHz
W	26-kHz	260-kHz	2.6-MHz	26-MHz	260-MHz	2.6-GHz	26-GHz	260-GHz
X	27-kHz	270-kHz	2.7-MHz	27-MHz	270-MHz	2.7-GHz	27-GHz	270-GHz
Y	28-kHz	280-kHz	2.8-MHz	28-MHz	280-MHz	2.8-GHz	28-GHz	280-GHz
Z	29-kHz	290-kHz	2.9-MHz	29-MHz	290-MHz	2.9-GHz	29-GHz	290-GHz

Network Personality (n)
A 1-byte (Base36 representation of a binary value) calculated as:

Digipeater (WIDEn-N)	00000#
Digipeater (TRACEn-N)	0000#0
Weather Station	000#00
Internet Gateway	00#000
RF Gateway	0#0000
Backbone Router	#00000

Binary Sum & display as a 1-byte Base(36) value

```
Example: Widen-N digi, WX station and IGate
                        000001
                        000100
                        001000
                        ------
                        001101 = 13 decimal, "D", BASE(36)

- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

WoW!  This information can be embedded right into the frame by having
client-side software include fields that the operator fills out...and does the
encoding for them.  On the RX-side...client-side software can easily parse out
this information and offer users a wide range of options in displaying stations
on their map.

Do you want to know all of the stations capable of IGating?  Easy!  The best
part is that it doesn't matter what the display icon is!

Lastly...even if you don't agree with this proposal, you are to be saluted for
reading through it and considering it.

Kind Regards,
Ev Tupis, W2EV


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```

6. [aprsspec] Updating the spec - RFI

```
From: "Ciemon Dunville G0TRT" <hamlists@g0trt.com>
Date: Tue, 28 Jan 2003 07:56:48 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117630-2003.01.28-02.45.03--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi all,

Well I offered my services and only a couple replied off list, so in an
attempt to get the ball rolling...

If you're an APRS software author could I ask you to send the following
please:

1.      Name and callsign.
2.      Software under development and OS.
3.      If you are willing/have the time/inclination to participate in APRS
spec development.
4.      Any limitations.

Short replies preferred please to get things rolling.

Oh, and if you're an author and can't for whatever reason participate, could
you please acknowledge this message so that we're all aware of your stance
as the spec is developed.

Thank you

Ciemon G0TRT



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```

7. [aprsspec] RE: aprsspec digest: January 28, 2003

```
From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Wed, 29 Jan 2003 17:00:09 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117829-2003.01.29-00.47.57--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

You asked for it...

Darryl Smith, VK2TDS
```

1. AntiTracker Basic
www.radio-active.net.au/web/tracking/antitracker.html

        PIC based, uploads positions in NMEA format (receive only)
        Decodes Positions only. Does not decode COMPRESSED (does do
MIC-E)
        Decodes above packets when sent in third party format from an
igate
        Beta Testing
        CCS C

2. AntiTracker Pro

        PIC Based, uploads in GARMIN binary format to a GPS
        Will soon decode icons in addition to above
        Beta Testing
        CCS C

3. OziAPRS http://radio-active.net.au/web/gpsaprs/oziaprs.html

        Receive only APRS for OziExplorer.
        Windows Based
        Interface in VB
        APRS Decoding based on libaprs2 by Max (mxd@wilder.net)
        Will have server built in eventually.
        Alpha Testing

4. BroadcastAPRS

        Receive only APRS designed for doing live webcasts of events
        Designed so that any size icons will work, and it will always
look good
        Will have autotrack
        Will soon be integrated with libaprs2
        VB
        Totally Unreleased.
        Basically designed for my consultancy business where I have the
need to do the occasional webcast when I do tracking.

5. gAPRS

        APRS server for GPRS, or other link layer on the internet where
the IP address changes constantly
        Translates IMEI number into a callsign, and converts NMEA string
into an APRS string
        Designed for the WMCS M110 GPRS/GPS tracking unit

Am I prepared to work on spec development. Yes.

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

-----Original Message-----
From: bounce-aprsspec-11660@lists.tapr.org
[mailto:bounce-aprsspec-11660@lists.tapr.org] On Behalf Of APRS Spec
Discussion List digest
Sent: Wednesday, 29 January 2003 4:00 PM
To: aprsspec digest recipients
Subject: aprsspec digest: January 28, 2003

APRS Spec Discussion List Digest for Tuesday, January 28, 2003.

1. Updating the spec - RFI

Subject: Updating the spec - RFI
From: "Ciemon Dunville G0TRT" <hamlists@g0trt.com>
Date: Tue, 28 Jan 2003 07:56:48 -0000
X-Message-Number: 1

Hi all,

Well I offered my services and only a couple replied off list, so in an

attempt to get the ball rolling...

If you're an APRS software author could I ask you to send the following
please:

1.	Name and callsign.
2.	Software under development and OS.
3.	If you are willing/have the time/inclination to participate in
APRS
spec development.
4.	Any limitations.

Short replies preferred please to get things rolling.

Oh, and if you're an author and can't for whatever reason participate, =
could you please acknowledge this message so that we're all aware of
your = stance as the spec is developed.

Thank you

Ciemon G0TRT

END OF DIGEST

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8. [aprsspec] Re: How to set the server filter at logon.

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Wed, 29 Jan 2003 15:48:20 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117926-2003.01.29-18.36.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 11 Jan 2003, Roger Bille wrote:

> Method #1
> The server logon string is check for a filter keyword and anything after
> that is treated as a filter definition. The filter keyword must be the 8th
> argument. For example:
>
> user SM5NRK pass 12345 vers Test 1.0 filter r/63/16/1000 t/wn

How do other servers handle the extra parameters? Ignore them, or
refuse to log on the user?

> Method #2
> The filter definition can also be sent in a comment line between the client
> and the server. The comment line must start with #. For example:
>
> user SM5NRK pass 12345 vers Test 1.0
> # filter r/63/16/1000 t/wn

Can't such comment lines come in from all kinds of sources? What if
a comment line containing filter parameters comes in from some other
source through and igate. Can the igate's filtering parameters then
get changed by someone on RF near the igate?

Perhaps the comment line has to be immediately following the logon
line? If so, that would reduce the above problem considerably.

> You define the filter by doing the following:
>
>   1. Connect and logon to a filter enabled port on a server
>   2. Send an APRS message to the server requesting the filter you want

This is the method we might have had problems implementing in
Xastir. Xastir has no concept currently of the "callsign" of the
remote server. We aren't parsing it out for anything currently.
Xastir only knows the ip address or hostname. If the callsign of
the remote server were always part of the hostname, we could still
have a problem in those cases where the user specified the server by
IP address. Yea, these are all workable, but they're a bit of a
pain.

I'm hoping to be able to use the first method listed above if other
servers don't have a problem with the extra parameters.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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9. [aprsspec] Re: How to set the server filter at logon.

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Wed, 29 Jan 2003 18:02:08 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117927-2003.01.29-18.49.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> -----Original Message-----
> From: Curt Mills, WE7U [mailto:hacker@tc.fluke.com]
> Posted At: Wednesday, January 29, 2003 5:50 PM
> Subject: [aprsspec] Re: How to set the server filter at logon.
>
> How do other servers handle the extra parameters? Ignore
> them, or refuse to log on the user?

aprsD and javAPRSSrvr w/o javAPRSFilter ignore them. I don't know about
AHub.

> Can't such comment lines come in from all kinds of sources?
> What if a comment line containing filter parameters comes in
> from some other source through and igate. Can the igate's
> filtering parameters then get changed by someone on RF near the igate?

No. A comment line seen on RF will have an AX.25 header on it making it
a standard packet from the IGate. Servers do not pass comment lines.
The IGate would have to directly generate the comment line with the
filter keyword and filter parameters for the filter to be changed.

> This is the method we might have had problems implementing in
> Xastir. Xastir has no concept currently of the "callsign" of
> the remote server. We aren't parsing it out for anything
> currently. Xastir only knows the ip address or hostname. If
> the callsign of the remote server were always part of the
> hostname, we could still have a problem in those cases where
> the user specified the server by IP address. Yea, these are
> all workable, but they're a bit of a pain.

The messaging method is designed to allow users to easily change the
filter on the fly using standard APRS client software. There is no
requirement for the client software to know the callsign of the server.
The only requirement is for the user to know the callsign of the server
that they are currently connected to.

> I'm hoping to be able to use the first method listed above if
> other servers don't have a problem with the extra parameters.

This is how UI-View and APRS+SA have implemented the feature. We have
not had any reports of problems with this method (other than the usual

bug reports/enhancement requests which we welcome).

73,

Pete Loveall AE5PL
pete@ae5pl.net

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10. [aprsspec] Re: How to set the server filter at logon.

From: "B. Hildebrand" <bhildebrand@earthlink.net>
Date: Wed, 29 Jan 2003 16:06:02 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117928-2003.01.29-18.53.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

*** comments below

> On Sat, 11 Jan 2003, Roger Bille wrote:
>
> > Method #1
> > The server logon string is check for a filter keyword and anything
after
> > that is treated as a filter definition. The filter keyword must be the
8th
> > argument. For example:
> >
> > user SM5NRK pass 12345 vers Test 1.0 filter r/63/16/1000 t/wn
>
> How do other servers handle the extra parameters? Ignore them, or
> refuse to log on the user?

*** APRSd, JavAPRSrvr servers ignore them from my testing and comments by
Pete, AE5PL.

>
> > Method #2
> > The filter definition can also be sent in a comment line between the
client
> > and the server. The comment line must start with #. For example:
> >
> > user SM5NRK pass 12345 vers Test 1.0
> > # filter r/63/16/1000 t/wn
>
> Can't such comment lines come in from all kinds of sources? What if
> a comment line containing filter parameters comes in from some other
> source through and igate. Can the igate's filtering parameters then
> get changed by someone on RF near the igate?
>
> Perhaps the comment line has to be immediately following the logon
> line? If so, that would reduce the above problem considerably.

*** If the line came from RF, it would have a callsign>path:data construct.
It should not be an issue.

>
> > You define the filter by doing the following:
> >
> > 1. Connect and logon to a filter enabled port on a server
> > 2. Send an APRS message to the server requesting the filter you want
>
> This is the method we might have had problems implementing in
> Xastir. Xastir has no concept currently of the "callsign" of the
> remote server. We aren't parsing it out for anything currently.
> Xastir only knows the ip address or hostname. If the callsign of
> the remote server were always part of the hostname, we could still
> have a problem in those cases where the user specified the server by
> IP address. Yea, these are all workable, but they're a bit of a
> pain.
>
> I'm hoping to be able to use the first method listed above if other
> servers don't have a problem with the extra parameters.

*** I did not implement the Message method in APRS+SA. I did implement
both the extended login string and # comment method. In the APRSERVE.TXT

file which APRS+SA uses, and I suspect Xastir has something similar, I added
the ability to add the complete filter. This means, # filter r/63/16/1000
t/wn. So and entry would be of the form:
server port comment # filter r/63/16/1000 t/wn
where server is the server address, port is the TCP/IP port, comment is any
additional text except octothorpe, "#", which is used to delimit the start
of the filter data. For APRS+SA, this made the new file backward compatible
with older versions. I do require the word "filter" to be specified as
there may be additional keywords used for filters in the future.

>
> --
> Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
> Senior Methods Engineer/SysAdmin
> "Lotto: A tax on people who are bad at math!"
> "Windows: Microsoft's tax on computer illiterates!" -- WE7U
> "The world DOES revolve around me: I picked the coordinate system!"
>
>
> ---
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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11. [aprsspec] Re: How to set the server filter at logon.

From: Dale Heatherington <dale@wa4dsy.net>
Date: Wed, 29 Jan 2003 20:04:16 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117954-2003.01.29-19.51.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Just for the record aprsd 215b9 has a means of setting
a port filter at login. This was done several months ago
and only applies to the new OmniPort, 14600.
I hoped this would inspire a gradual move to
using a single port for all user streams. Of course
it could also be expanded to any type user defined
filter.

See:

http://www.wa4dsy.net/aprs/ports.html#omniport

Messages are addressed to "SERVER" , not the
servers callsign. The filter can be set prior to login.
eg:
pf(all,history)
user wa4dsy pass 12345 vers macaprs 1.0

Note the login string is not modified. No comment
lines are used. The same function that
parses the login also parses the filter command.

And, after login commands can be put in
messages addressed to SERVER.
eg:
WA4DSY>APRS::SERVER :pf(all,history)

To prevent other aprs servers from responding
to the message the following is done:
Messages addressed to SERVER are swallowed and
not repeated. Message must be from login callsign.

Aprsd can connect to other aprsd servers and automatically
issue a port filter command. The aprsd.conf file server login
syntax was expanded to accomodate this.
eg:
Server wa4dsy.net 14600 server-ro portfilter(local)

Dale

WA4DSY

On Wednesday 29 January 2003 6:48 pm, you wrote:
> On Sat, 11 Jan 2003, Roger Bille wrote:
> > Method #1
> > The server logon string is check for a filter keyword and anything after
> > that is treated as a filter definition. The filter keyword must be the
> > 8th argument. For example:
> >
> > user SM5NRK pass 12345 vers Test 1.0 filter r/63/16/1000 t/wn
>
> How do other servers handle the extra parameters? Ignore them, or
> refuse to log on the user?
>
> > Method #2
> > The filter definition can also be sent in a comment line between the
> > client and the server. The comment line must start with #. For example:
> >
> > user SM5NRK pass 12345 vers Test 1.0
> > # filter r/63/16/1000 t/wn
>
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> a comment line containing filter parameters comes in from some other
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> This is the method we might have had problems implementing in
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> remote server. We aren't parsing it out for anything currently.
> Xastir only knows the ip address or hostname. If the callsign of
> the remote server were always part of the hostname, we could still
> have a problem in those cases where the user specified the server by
> IP address. Yea, these are all workable, but they're a bit of a
> pain.
>
> I'm hoping to be able to use the first method listed above if other
> servers don't have a problem with the extra parameters.

--
Dale Heatherington
http://www.wa4dsy.net

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12. [aprsspec] [aprssig] New spec - short-term deliverables

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Wed, 29 Jan 2003 22:08:02 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117968-2003.01.29-21.55.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Forwarded from APRSIG

Here's what I'm hoping to produce in the near term:

1. An APRS-IS translator that'll translate a full stream and provide it to
clients in the new format.
    This will probably be an NT service, unless someone wants to
volunteer to write a Unix daemon.

2. An ActiveX control to interface with the translator.

Just tell it to connect, and it'll raise an appropriate event whenever a recognized message is received. If it doesn't recognize the message format, it'll pass the raw data to a generic event so you can parse your own messages.

I think I'll also add an encapsulation message type for carrying standard APSR messages. That way, you can drop the control into an existing application, and use your existing parser to handle those messages that aren't translated yet.

I figure that if I can get this going, it really doesn't matter if anyone else adopts it as a standard. It'll still be useful to me, and if the translator becomes a standard feature on APRS-IS servers it'll make client development easier and reduce bandwidth usage, at least a bit. Notice that the example message took only 18 bytes for time and position with better precision than current formats allow.

Scott / N1VG

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13. [aprsspec] [aprssig] New spec - working notes

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Wed, 29 Jan 2003 22:08:37 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117969-2003.01.29-21.56.56--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks to everyone who responded off-list. I figure it's time we had something concrete to fight about, so here's my proposal for a general message header and two primitive message types.

Message Header Format

```
bits: 1        7         8          8
-------------------------------------------------------------
| ext_flag | length | msg_type | ext_type | message body... |
-------------------------------------------------------------
```

ext_flag - A '1' in this field indicates a 16-bit message ID.
length - Length of message, inclusive of message ID.
msg_type - The message ID if ext_flag = 0, otherwise the low byte of the message ID
ext_type - High byte of message ID. Only present if ext_flag = 1.

This message type scheme allows for 65,792 message types (256 standard and 65,536 extended).
8-bit message IDs are reserved for common, standard messages. 16-bit IDs are used for less-frequently used messages and experimental message types.

0-byte messages are supported for instances where the presence of the message type alone conveys the required information.

No CRC is included, as a reliable transport layer is assumed.

All numbers are little-endian.

Position format:

All positions reference the WGS84 datum using decimal degrees.
Coordinates are represented by 32-bit unsigned integers as follows:

Integer longitude = (longitude + 180) * 2^23
Integer latitude = (latitude + 90) * 2^24

Altitude is in meters above WGS84 ellipsoid, stored as a 16-bit unsigned integer.

Time format:

All times are in seconds elapsed since 1 Jan 1970 00:00:00.0 UTC, stored as
a 32-bit unsigned integer.
This is equivalent to the standard Unix time format.

MSG #01 - Position

[Latitude] 32 bits
[Longitude] 32 bits
[Alititude] 16 bits

Example:

0B 01 06 81 F5 7C 5E BA C9 1D 65 01 = 34.959 N, 120.424 W, 257 meters

MSG #02 - Timestamp

[Time] 32 bits

Example:

05 02 6E 3E 38 3E = Wed, 29 Jan 2003 20:49:50 UTC

Position with timestamp example (18 bytes total):

0B 01 06 81 F5 7C 5E BA C9 1D 65 01 05 02 6E 3E 38 3E

Errata

16-bit unsigned altitudes may be a problem in areas like Death Valley.
Use of signed integers would limit altitudes to 32,767 meters max.
This could pose a problem for balloon experiments at high altitudes.

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14. [aprsspec] [aprssig] RE: New spec - working notes

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Wed, 29 Jan 2003 22:09:16 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-117970-2003.01.29-21.57.07--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Updated notes to include new altitude format, plus course and speed and
comment messages: (Bob, you're unusually quiet. Comments?)

N1VG format working notes

Message Header Format

bits: 1   7   8   8

| ext_flag | length | msg_type | ext_type | message body... |
----

ext_flag - A '1' in this field indicates a 16-bit message ID.
length - Length of message, inclusive of message ID.
msg_type - The message ID if ext_flag = 0, otherwise the low byte of the

message ID
ext_type - High byte of message ID. Only present if ext_flag = 1.

This message type scheme allows for 65,792 message types (256 standard and
65,536 extended).
8-bit message IDs are reserved for common, standard messages. 16-bit IDs
are used for less-frequently used messages and experimental message types.

0-byte messages are supported for instances where the presence
of the message type alone conveys the required information.

No CRC is included, as a reliable transport layer is assumed.

All numbers are little-endian. Signed integers use two's complement
notation.

MSG #01 - Position

[Latitude] 32 bits
[Longitude] 32 bits
[Alititude] 24 bits

Positions reference the WGS84 datum using decimal degrees. Coordinates are
represented by 32-bit unsigned integers as follows:

Integer longitude = (longitude + 180) * 2^23
Integer latitude = (latitude + 90) * 2^24

Altitude is in centimeters above WGS84 ellipsoid, stored as a 24-bit signed
integer.

Example:

0C 01 06 81 F5 7C 5E BA C9 1D 7C 47 00 (34.959 N, 120.424 W, 183.0 meters)

MSG #02 - Timestamp

[Time] 32 bits

Times are in seconds elapsed since 1 Jan 1970 00:00:00.0 UTC (UNIX format).

Example:

05 02 6E 3E 38 3E (Wed, 29 Jan 2003 20:49:50 UTC)

MSG #03 - Freeform Comment

[Text] Up to 126 characters, not zero-delimited

The purpose of the comment is to provide a free-form text field associated
with the originating station.

Example:

05 03 41 42 43 44 (ABCD)

MSG #04 - Course and Speed

[Course] 16 bits (degrees)
[Speed] 16 bits (cm/sec)

Speeds are in centimeters per second. Course is in degrees relative to true
north.

Example:

05 04 C3 00 AE 08 (195 degrees at 80 km/hr)

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15. [aprsspec] Re: How to set the server filter at logon.

From: Juergen Frank <db2fm@jfsattv.de>
Date: Thu, 30 Jan 2003 08:21:49 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-118014-2003.01.30-02.09.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hello Dale,

I talked to Hans-Jürgen (DL5DI, sysop of db0lj) about port filtering some
days ago and he gave me this info.

One thing I'm reaaly missing in this filter implementation:
There's no filter by distance.
Is ist planned to include it in future versions?

Is it also planned to make a standard (not to use the word 'spec') for
filter commands and the syntax they sould be send to the server?
Right now we have two syntaxes... :(

73 de Juergen db2fm

am 30.01.2003 2:04 Uhr schrieb Dale Heatherington unter dale@wa4dsy.net:

> Just for the record aprsd 215b9 has a means of setting
> a port filter at login. This was done several months ago
> and only applies to the new OmniPort, 14600.
> I hoped this would inspire a gradual move to
> using a single port for all user streams. Of course
> it could also be expanded to any type user defined
> filter.
>
> See:
>
> http://www.wa4dsy.net/aprs/ports.html#omniport
>
> Messages are addressed to "SERVER" , not the
> servers callsign. The filter can be set prior to login.
> eg:
> pf(all,history)
> user wa4dsy pass 12345 vers macaprs 1.0
>
> Dale
> WA4DSY

--
DB2FM
Juergen Frank
mailto: db2fm@amsat.org
mailto: db2fm@darc.de
mailto: db2fm@jfsattv.de
ICQ: 144135020

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16. [aprsspec] SV: Re: How to set the server filter at logon.

From: "Roger Bille" <roger.bille@telia.com>
Date: Thu, 30 Jan 2003 11:13:34 +0100

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-118020-2003.01.30-04.58.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Juergen,

> Is it also planned to make a standard (not to use the word 'spec') for
> filter commands and the syntax they sould be send to the server?
> Right now we have two syntaxes... :(

When I defined my syntax in javPRSFilter I was not aware of Dale's syntax and I can not recall that I have seen it somewhere before (I could be wrong). My design goal was to create simple and short command structure that will take as few keystrokes as possible but still provide a big variaty of options and easy to remember. The current implementation provide 8 different types of filters.

An other thing is that my implementation is purly targeting on filtering based on the packets content and not how they are handled by the server or how they entered there. The later depend on how the server is designed and is actullay not possible to add in my code.

I had only the end users in my mind to see what they would like to have. Server statistics and other server data is handled differently beetween servers and I think Dale's is a nice implementation for aprsd sysop and javAPRSSrvr have other solutions for it's sysop's to provide the same thing.

If Dale plan to add packet content based filtering I think it would be nice to create one syntax. Today we provide 2 different things. javAPRSFilter provide packet content filtering and Dale's OmniPort server processing information (at least what I understand)

73 de sm5nrk/Roger

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

17. [aprsspec] New spec discussion

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Thu, 30 Jan 2003 19:49:43 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-118080-2003.01.30-14.38.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

As a couple people have suggested, I'm moving this discussion to the spec list. I may still seek input from the wider APRS community on specific issuse. For review, here's my current version of the spec working notes. I hope it explains clearly enough what I'm trying to accomplish.

N1VG protocol working notes

Purpose

This document describes a proposed replacement for and/or adjunct to the existing APRS specification. The protocol described here allows for simple or complex messages to be built from a set of simple component message formats.

Message Groups

One or more message components forms a Message Group. A Message Group may be optionally prefixed with a sequence number. The sequence number allows receiving stations to identify the most recent data from the sender. In a peer-to-peer environment, stations may choose to store the most recent Message Group from each sender heard. Future extensions to the protocol will allow peer stations to exchange and synchronize information about neighboring stations.

Data Types and Units

All numeric data types are little-endian (low-byte first). Signed integers use two's complement notation. Single and double precision floating point numbers use IEEE Standard 754 format. Character values are standard ASCII. The protocol will use SI units exclusively.

Message Header Format

Every component message of the protocol is preceeded by a Message Header.
This indicates the length and type of the following message. The length is
provided even in fixed-length messages to allow simple clients to skip
unsupported message types.

```
bits: 1        7         8          8
-------------------------------------------------------------
| ext_flag | length | msg_type | ext_type | message body... |
-------------------------------------------------------------
```

ext_flag - A '1' in this field indicates a 16-bit message ID.
length - Length of message, inclusive of message ID.
msg_type - The message ID if ext_flag = 0, otherwise the low byte of the
message ID
ext_type - High byte of message ID. Only present if ext_flag = 1.

This message type scheme allows for 65,792 message types (256 standard and
65,536 extended). 8-bit message IDs are reserved for common, standard
messages. 16-bit IDs are used for less-frequently used messages, status
flags, and experimental message types. 0-byte messages are supported for
instances where the presence of the message type alone conveys the required
information.

A length field of 0 (bytes 0x00 and 0x80) is reserved and currently
undefined.

No CRC is included, as a reliable transport layer is assumed.

Message Format Definitions

MSG #00 - Message Group Sequence

[Sequence] 16 bits

The message group sequence optionally associates multiple message parts with
a single sequence number. The sequence number starts at 1 and is
incremented each time the originating station has new information to
transmit. A message group may not contain more than one of the same message
type unless otherwise noted. If a datagram-oriented transport is used,
message groups may be split across datagrams, but each datagram must carry
the Message Group Sequence message.

MSG #01 - Originating Station

[Callsign] 6 bytes
[SSID] 8 bits
[Sequence] 16 bits
[Network] 8 bits

This message type is intended to prefix messages which originated with other
stations. Messages may be collected and grouped together for transmission
by a digipeater using this mechanism, or it may be used to identify messages
when carried over a backbone network. In the case of a stream-oriented
transport such as TCP, all following messages are assumed to originate at
the specified station until another Originating Station identification
message is received. For datagram-oriented transports like unconnected
AX.25 and UDP, the scope of the identification message extends only to the
end of the underlying datagram.

A Message Group Sequence may follow an Originating Station message to
indicate the start of a new message sequence. The callsign, SSID, and
originating network values are carried over to the new message group. This
may be used for transmitting a multiple-sequence history for a given
station.

If the originating station did not provide a sequence number, the sequence
field is set to null (ASCII 0).

Callsign - The originating station's callsign, right-padded with nulls

(ASCII 0).
SSID - The SSID of the originating station.
Sequence - See Message Group Sequence. A sequence of 0 indicates no
associated group.
Network - Identification of the originating network.

Currently defined network IDs:

00 - Primary VHF channel (144.39 in the US)
01 - APRS-IS backbone
02 - UHF backbone
03 - HF

Message groups lacking an Originating Station prefix are assumed to
originate with the sender. The originating network is assumed to be that on
which the message group was received.

MSG #02 - Path Trace

[Callsign] 6 bytes
[SSID] 8 bits
[Network] 8 bits
<repeated 0 or more times>

To request a path trace, a station may include an empty Path Trace message.
Any station the message passes through should add its own callsign and SSID
to the Path Trace message. A Path Trace may be added by any station along
the path, whether the originating station requested it or not. The network
ID indicates the network on which the station received the message.

Example:

01 05 (Request a path trace)

MSG #03 - Heard-By List

[Network] 8 bits
<repeated 0 or more times>

A station transmitting a message to another network must add the source
network's ID to this list, if the source network is not the originating
network of the message. This message type should only be present in message
groups that have passed through a network gateway.

MSG #04 - Position

[Latitude] 32 bits
[Longitude] 32 bits
[Alititude] 24 bits

Positions reference the WGS84 datum using decimal degrees. Coordinates are
represented by 32-bit unsigned integers as follows:

Integer longitude = (longitude + 180) * 2^23
Integer latitude = (latitude + 90) * 2^24

Altitude is in centimeters above WGS84 ellipsoid, stored as a 24-bit signed
integer.

Example:

0C 01 06 81 F5 7C 5E BA C9 1D 7C 47 00 (34.959 N, 120.424 W, 183.0 meters)

MSG #05 - Timestamp

[Time] 32 bits

Times are in seconds elapsed since 1 Jan 1970 00:00:00.0 UTC (UNIX format).

Example:

05 02 6E 3E 38 3E (Wed, 29 Jan 2003 20:49:50 UTC)

MSG #06 - Freeform Comment

[Text] Up to 126 characters, not zero-delimited

The purpose of the comment is to provide a free-form text field associated
with the originating station.

Example:

05 03 41 42 43 44 (ABCD)

MSG #07 - Course and Speed

[Course] 16 bits (degrees)
[Speed] 16 bits (cm/sec)

Speeds are in centimeters per second. Course is in degrees relative to true
north.

Example:

05 04 C3 00 AE 08 (195 degrees at 80 km/hr)

MSG #08 - Networks Available

[Network] 8 bits
<repeated 0 or more times>

A station may use this message type to announce the Network IDs of the
networks it is connected to and willing to pass traffic to or from.

MSG #0100 - Emergency

(No content defined)
Presence of this message indicates an emergency situation.

Example:

82 00 01

Extended message types 0x100 through 0x1ff are reserved for status flags.

MSG #xx - Satellite Keplerian element

[Sat ID] 24 bits (NORAD catalog number)
[Epoch time] 64 bits (double float)
[ndot] 32 bits - ndot/2 drag parameter (single float)
[nddot] 32 bits - n double dot/6 drag parameter (single float)
[bstar] 32 bits - Bstar drag parameter (single float)
[elset] 16 bits - Element set number
[inclination] 32 bits - orbital inclination (single float)
[ra] 32 bits - Right ascension (single float)
[eccentricity] 32 bits - orbital eccentricity (single float)
[aop] 32 bits - argument of perigee (single float)
[ma] 32 bits - mean anomaly (single float)
[mm] 64 bits - mean motion (double float)
[rev] 16 bits - revolution number

All values are the same as those in standard NORAD TLEs, taking into account

implied decimals and exponents.

Example Scenario:

```
Tracker X1AA -> VHF:
 Position
 Timestamp
 Course/Speed
 Trace Path

Tracker X2AB -> VHF:
 Sequence 45
 Position
 Timestamp
 Weather

Digipeater D1AA -> VHF:
 Networks Available: 0 2
 Originating Station X1AA Sequence 0 Network 0:
 Position
 Timestamp
 Course/Speed
 Trace Path: D1AA
 Originating Station X2AB Sequence 45 Network 0:
 Position
 Timestamp
 Weather

IGATE G1ATE -> APRS-IS:
 Networks Available: 0 1
 Originating Station D1AA Sequence 0 Network 0:
 Networks Available: 0 2
 Originating Station X1AA Sequence 0 Network 0:
 Position
 Timestamp
 Course/Speed
 Trace Path: D1AA(Net 0) G1ATE(Net 0)
 Originating Station X2AB Sequence 45 Network 0:
 Position
 Timestamp
 Weather

APRS-IS -> TCP Client:
 Originating Station G1ATE Sequence 0 Network 1:
 Networks Available: 0 1
 Originating Station D1AA Sequence 0 Network 0:
 Networks Available: 0 2
 Originating Station X1AA Sequence 0 Network 0:
 Position
 Timestamp
 Course/Speed
 Trace Path: D1AA(Net 0) G1ATE(Net 0) <APRS-IS server>(Net 1)
 Originating Station X2AB Sequence 45 Netowrk 0:
 Position
 Timestamp
 Weather
```

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

18. [aprsspec] Re: How to set the server filter at logon.

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 30 Jan 2003 13:56:26 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-118099-2003.01.30-16.44.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 29 Jan 2003, B. Hildebrand wrote:

> *** I did not implement the Message method in APRS+SA.   I did implement
> both the extended login string and # comment method.

Thanks Brent and the rest of you who answered my questions. I just
added method #1 (logon string) into Xastir CVS. It's working great,
settable per internet server in the properties dialog for that
server.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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February 2003

Original source file: aprsspec.0302
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0302

1. [aprsspec] Winter 2003 Packet Status Register Available

From: John Ackermann N8UR <jra@febo.com>
Date: Wed, 05 Feb 2003 11:56:10 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-119070-2003.02.05-11.53.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The Winter, 2003 issue of TAPR's journal, The Packet Status Register, is
available online at http://www.tapr.org/PSR.

Its contents include:

* New 802.11 E-List
* TAPR Project Policy
* OneTech ¹02 Technical Symposium
* Book Review: 802.11 Wireless Networks
* 3D Environments and Mars: A Follow-up from the 2002 DCC
* Extending Icom OPC-581 Extension Cables for Icom IC-706s
* Digital Radio Mondiale and Amateur Radio Implications
* 2003 in Connecticut

Enjoy!

73,
John

John Ackermann   N8UR   jra@febo.com   http://www.febo.com
President, TAPR   n8ur@tapr.org   http://www.tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] Re: [aprssig] re: aprs spec/words of warning

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Wed, 05 Feb 2003 18:00:28 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: TAPR APRS eMail Remailer <aprssig@lists.tapr.org>
Message-ID: <LYR11589-119181-2003.02.05-17.49.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

cc:ing this to the APRSspec list to migrate it there...

> I agree. The small advantage of Binary is more than offset by dozens of
> reasons to stick with printable ascii.   BOb, WB4APR

I suppose it all depends on what the excersise is trying to accomplish.

If it's simply binary-encoding the existing spec, then then I agree.

>From what I'm reading, though...this newly emerging protocol will include:
o finer detail (smaller stept) than what is available in the
  existing protocol
o new parameters that the existing protocol doesn't address

That being said, this new protocol work appears to have more advantage than what
may appear on the surface.

Of course, my opinion and 99-cents gets you a Big-Gulp at the corner
mini-market.

Regards,
Ev, W2EV

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] DF reports

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Wed, 5 Feb 2003 23:13:26 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-119182-2003.02.05-18.01.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can someone fill me in on the real-world use of the DF reporting formats?
Some things that bug me in the spec:

'N'umber is defined, but not processed. Does anyone use this? Does it mean
anything?

'R'ange doesn't seem to make much sense for a tracking device that's not
connected to a map display. This value has no direct relationship to the
signal, right?

I'd assume 'Q'uality would usually be a fixed value to indicate the
beamwidth of the antenna.

Omni signal strength at least makes sense. How much is this used, and what
hardware are people using to do it?

Yeah, this is more a real-world question than a spec question, but if
someone here can answer it it'd spare the SIG more of my rambling. =]

Thanks...

Scott / N1VG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

4. [aprsspec] Re: DF reports

From: Bob Bruninga <bruninga@usna.edu>
Date: Wed, 5 Feb 2003 18:41:49 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-119184-2003.02.05-18.30.01--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 5 Feb 2003, Miller Scott Contr 30SCS/FTI wrote:

> Can someone fill me in on the real-world use of the DF reporting formats?
> Some things that bug me in the spec:
>
> 'R'ange doesn't seem to make much sense for a tracking device that's not
> connected to a map display. This value has no direct relationship to the
> signal, right?

It is very important. An HF BEAM can detect a signal coming in from 3000
miles away. Thus, his bearing line should be 3000 miles long. A
dobule-ducky handheld VHF DF unit can get a bearing on a signal maybe 20
miles away if he is on a hill. Thus a 20 mile bearing line is
appropriate. Once he is in close, the signal is strong, and his DFING has
revealed that he is within abou a mile of the source, then a 1 mile DF
line is appropriate.

Some APRS client programs do not use this data, and their use in actual DF
work is almost useless becuase they do not display the ORIGNATORS
knowledge of how far OUT his bearing line is of value...

> I'd assume 'Q'uality would usually be a fixed value to indicate the
> beamwidth of the antenna.

Yes, You could use it to display various width wedges. In APRSdos, i did
not do wedges because it just confused the display (since I could not
shade it in in DOS) so I just made the bearing line more or less "dotted"
to show the quality of the fix...

> Omni signal strength at least makes sense. How much is this used, and what
> hardware are people using to do it?

Yes be sure to see http://www.ew.usna.edu/~bruninga/dfing.html

de WB4APR, Bob

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] Authentication

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Thu, 6 Feb 2003 00:19:37 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-119209-2003.02.05-19.15.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Has anyone ever looked at the feasibility of using a digital signature
algorithm for authentication in APRS or packet in general? My concern is
mostly with object and item reports - if I mark a crash site or victim
location on a map, I don't necessarily want someone to be able to move it.
A real public-key infrastructure would be difficult to implement, I think,
but it seems to me that you ought to at least be able to ensure that the
creator of an object is the only one who can change it, if that's what they
want. Elliptic Curve Digital Signature Algorithm seems like an ideal
algorithm for implementing this. You could put your public key in the
initial transmission, and subsequent transmissions would be verifiably from
the same source. A 160-bit ECC key is roughly equivalent to a 1024-bit RSA
key, and 108 bits is the longest ECC key that's been cracked so far. 128
bits (16 bytes) would seem more than sufficient for amateur purposes.

Now, before anyone has a fit about cryptography in amateur radio, keep in
mind that this DOES NOT CONCEAL THE MEANING of a message. It only serves to
verify that two or more messages came from the same source.

Thoughts, anyone?

Scott / N1VG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Mailing list for new spec development

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Wed, 12 Feb 2003 20:29:47 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-120292-2003.02.12-15.18.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I've created a new mailing list dedicated to discussion and development of
the new (as yet unnamed) binary protocol. To subscribe, send a message to
lists@n1vg.net with the subject line 'subscribe spec'.

I've had lots of good feedback on the APRS SIGs about this project, but I
don't want to clutter up the lists with lots of technical discussions that
aren't strictly about APRS. I'd like to encourage anyone who's interested
in contributing to the protocol, or who just wants to lurk and see what's
going on, to join the list.]

For anyone who's missed the previous discussions about the proposed
protocol, I'll be setting up a website soon with a summary of the project's
goals, as well as the current version of the spec.

Scott / N1VG

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Re: Mailing list for new spec development

From: Roger Barker <roger@peaksys.co.uk>
Date: Wed, 12 Feb 2003 20:46:49 +0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-120294-2003.02.12-15.35.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-120292-2003.02.12-15.18.05--roger#peaksys.co.uk@lis
ts.tapr.org>, Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.m

```
il> writes
>I've created a new mailing list dedicated to discussion and development of
>the new (as yet unnamed) binary protocol.  To subscribe, send a message to
>lists@n1vg.net with the subject line 'subscribe spec'.

Is there a reason why it shouldn't be discussed in this list? I don't
want to join yet another list.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

8. [aprsspec] Re: Mailing list for new spec development

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Wed, 12 Feb 2003 20:54:22 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-120295-2003.02.12-15.42.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
I've had a couple of people say 'but it's not APRS'.  I'd rather just avoid
the whole issue and keep it separate.  I'm sure I'll still be posting
periodic updates here, and I'll also be on the main APRS SIG asking for
input from the wider APRS community from time to time.

Scott / N1VG

-----Original Message-----
From: Roger Barker [mailto:roger@peaksys.co.uk]
Sent: Wednesday, February 12, 2003 12:47 PM
To: APRS Spec Discussion List
Subject: [aprsspec] Re: Mailing list for new spec development


In message <LYR26815-120292-2003.02.12-15.18.05--roger#peaksys.co.uk@lis
ts.tapr.org>, Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.m
il> writes
>I've created a new mailing list dedicated to discussion and development of
>the new (as yet unnamed) binary protocol.  To subscribe, send a message to
>lists@n1vg.net with the subject line 'subscribe spec'.

Is there a reason why it shouldn't be discussed in this list? I don't
want to join yet another list.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

---
You are currently subscribed to aprsspec as: scott.miller@vandenberg.af.mil
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

---
You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
```

9. [aprsspec] Re: Mailing list for new spec development

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Wed, 12 Feb 2003 18:57:57 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-120311-2003.02.12-18.48.13--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Roger asked: "Is there a reason why it shouldn't be discussed in this list?
              I don't want to join yet another list."

Scott said:  "I've had a couple of people say 'but it's not APRS'.  I'd
              rather just avoid the whole issue and keep it separate."

Interestingly...I support both Roger's desire to keep life simple, as well as
the frustration that Scott must feel when trying to take something to a new
```

level and be met with such narrow vision.

Scott, what you are developing will, potentially, have a positive impact on several UI-Frame services...however...without buy-in by the APRS community, the chances of adoption of the protocol will be slim as APRS is still the "800-pound gorilla" of UI-Frame AX.25.

I will go wherever the discussion goes...but would offer the insight that -- by leaving it here -- you can keep the APRS community actively engaged in it's development and may see that it is more quickly accepted by APRS authors once it matures.

This list really isn't that busy anyway. :o)

fwiw.

Warm regards,
Ev, W2EV
--
What's cool in Amateur Radio?
http://www.BEACONet.org or join the on-line community by
sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

10. [aprsspec] Re: Mailing list for new spec development

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Thu, 13 Feb 2003 16:59:01 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-120341-2003.02.13-00.47.54--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I share the views of many others in that this list is EXACTLY the right place to discuss any issues with SPEC development. And since there has not been too much traffic on this list recently, I don't think that the other members will have too many problems with this.

The risk with running another mailing list is that many people who would normally be reading the traffic will not see the posts as they go past.

There are no issues with creating another TAPR list, all you have to do is ask.

Darryl,
TAPR board member

Darryl Smith, VK2TDS POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

11. [aprsspec] Re: Mailing list for new spec development

From: Jeff King <jeff@aerodata.net>
Date: Thu, 13 Feb 2003 14:22:28 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-120402-2003.02.13-14.10.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Darryl:

I don't share those views.

This list (APRSSPEC) was specifically created to support the APRS-WG committee. After the APRS-WG was created, they documented the existing format. Over two years since then, and nothing.

The new list may fail, but at least give them every chance they can. I'd rather see a new list, be it Scott's or TAPR's. Then the people joining it

are sincerely interested in progress. Change happens with just a few people,
not a committee.

--
Jeff King, jeff@aerodata.net on 02/13/2003

On Thu, 13 Feb 2003 16:59:01 +1100, Darryl Smith wrote:
>I share the views of many others in that this list is EXACTLY the right
>place to discuss any issues with SPEC development. And since there has
>not been too much traffic on this list recently, I don't think that the
>other members will have too many problems with this.
>
>The risk with running another mailing list is that many people who would
>normally be reading the traffic will not see the posts as they go past.
>
>There are no issues with creating another TAPR list, all you have to do
>is ask.
>
>Darryl,
>TAPR board member

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] OpenTAC -

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Wed, 26 Feb 2003 16:35:27 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-122102-2003.02.26-00.26.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

G'Day

I am sorry for the cross-post, but sometimes this is needed. For those
that are not aware of it, [since they feel that they should get their
APRS news from the APRS SIG and not from SlashDot.Org], there is a group
producing a protocol called the OPENTRAC. Their WWW site is
www.opentrac.org. Apart from the email address scott@opentrac.org I have
no idea who is involved with this project.

I am going to email scott and find out more. However I am rather
concerned about the fact that the first thing I heard about this spec
was on SlashDot and not on APRSsig or APRSspec.

I am concerned that the unity we achieved by producing the working
document will be destroyed by producing another spec, no matter how
good.

Darryl VK2TDS

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

13. Attn: Contact

From: ben abugu <ben.abugu@lycos.co.uk>
Date: Wed, 26 Feb 2003 10:36:51 +0100
To: ben.abugu@lycos.co.uk
Message-ID: <1046252211031003@lycos-europe.com>
Rendered body type: text/html

TABLE.mail_content {DISPLAY: block}

TABLE.mail_content {DISPLAY: block}

Dear Friend,

I am MR ABIOLA GEORGE, Bank Manager of ORIENT BANK OF NIGERIA, Lagos Branch. I have urgent and very confidential business proposition for you. On June 6 1997, an American oil consultant/contractor with the Nigerian National

Petroleum Corporation, Mr. Nelly Cole made a numbered time (Fixed) deposited for twelve calendar months, valued at US$25,000,000.00 (TWENTY FIVE Million United States Dollars) in my branch. Upon maturity, I sent a routine notification to his forwarding address but got no reply. After a month, we sent a reminder and finally we discovered from his contract employers,

Nigerian National Petroleum Corporation that Mr. Nelly Cole died from an automobile accident. On further investigation, I found out that he did not leave a WILL and all attempts to trace his next of kin were fruitless. I therefore made further investigation and discovered that Mr. Nelly Co le did not declare any next of kin n all his official documents, including his Bank Deposit paperwork. This sum of US$25,000,000.00 is still sitting in the Bank and the interest is being rolled over with the principal sum at the end of each year. No one will come forward to claim it. According to the Nigerian Law, at the expiration of 6 (six) years, the money will revert to the

ownership of the Nigerian Government if nobody applies to claim the funds. Consequently, my proposal is that I will like you as a foreigner to stand in as the next of kin to Mr. Nelly Cole so that the fruits of this old man's labor will not get into the hands of some corrupt officials. This is simple I will like you to provide me immediately with your full names and address so that the attorney will prepare the necessary documents and affidavits, which will put you in place as the next of kin. We shall employ th e services of two attorneys for drafting and notarization of the WILL and obtain the necessary documents and letter of probate/administration in your favor the transfer. A bank account in any part of the world, which you provide, will then facilitate the transfer of this money to you as the beneficiary/next of kin. The money will be paid into your account for us to share in the ratio of that we will both agreed upon. There is no risk at all as all the paperwork for this transaction will be done by the attorney and my position as the Branch Manager guarantees the successful execution of this transaction. If you are interested, please reply immediately via email. Upon your response, I shall then provide you with more details and relevant documents that will help you understand. Please observe utmost confidentiality, and rest assured that this transaction would be most profitable for both of us because I shall require your assistance to invest my share in your country. Awaiting your urgent reply via email:

Best regards,

Abiola George.

14. Your confirmation is needed (ok 11589)

From: Lyris <unsubscribe-confirm@lists.tapr.org>
Date: Wed, 26 Feb 2003 04:25:59 -0500
To: lyris.aprsspec@tapr.org
Message-ID: <LYR11589-122117-2003.02.26-04.25.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

```
Your email address 'lyris.aprsspec@tapr.org' has been submitted to be
unsubscribed from the 'aprsspec' mailing list.

This unsubscribe command requires your confirmation that you want to be
unsubscribed.

To confirm that you do want to unsubscribe, reply to this message so that
the words "ok 11589" appear somewhere on the subject line.

Make sure that your reply message is addressed to
unsubscribe-confirm@lists.tapr.org

You will receive notification that your confirmation has been received, and
that you have been unsubscribed.

If you do not want to unsubscribe, do nothing.  You will be kept on the
mailing list.

---

Return-Path: <ben.abugu@lycos.co.uk>
Received: from lmout01.st1.spray.net ([212.78.202.120]) by lists.tapr.org with SMTP (Lyris Server
version 3.0); Wed, 26 Feb 2003 04:25:46 -0500
Received: from lycos.co.uk (pu62.st1.spray.net [212.78.202.57])
        by lmout01.st1.spray.net (Postfix) with SMTP
        id DD30B205B9; Wed, 26 Feb 2003 10:37:12 +0100 (MET)
From: ben abugu <ben.abugu@lycos.co.uk>
To: aprsspec-request
Message-ID: <1046252211031003@lycos-europe.com>
X-Mailer: LycosMail
X-Originating-IP: [216.139.176.157]
Mime-Version: 1.0
Subject:
Date: Wed, 26 Feb 2003 10:36:51 +0100
Content-Type: multipart/mixed; boundary="=_NextPart_Lycos_0310031046252211_ID"

# Mail sent to leave-aprsspec-11589p was converted to these commands:
unsubscribe aprsspec lyris.aprsspec@tapr.org confirm
end

# This is the text of the message that triggered the action:

Return-Path: <ben.abugu@lycos.co.uk>
Received: from lmout01.st1.spray.net ([212.78.202.120]) by lists.tapr.org with SMTP (Lyris Server
version 3.0); Wed, 26 Feb 2003 04:25:46 -0500
Received: from lycos.co.uk (pu62.st1.spray.net [212.78.202.57])
        by lmout01.st1.spray.net (Postfix) with SMTP
        id DD30B205B9; Wed, 26 Feb 2003 10:37:12 +0100 (MET)
From: ben abugu <ben.abugu@lycos.co.uk>
To: ben.abugu@lycos.co.uk
Message-ID: <1046252211031003@lycos-europe.com>
X-Mailer: LycosMail
X-Originating-IP: [216.139.176.157]
Mime-Version: 1.0
Subject: Attn: Contact
Date: Wed, 26 Feb 2003 10:36:51 +0100
Content-Type: multipart/mixed; boundary="=_NextPart_Lycos_0310031046252211_ID"

This message is in MIME format. Since your mail reader does not understand
this format, some or all of this message may not be legible.

--=_NextPart_Lycos_0310031046252211_ID
Content-Type: text/html; charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

<STYLE>TABLE.mail_content {DISPLAY: block}</STYLE><TABLE width="440" height="300" Class="mail_content"
ALIGN="CENTER"><TR><TD VALIGN="TOP" style="position:relative;"><div>
<STYLE>TABLE.mail_content {DISPLAY: block}</STYLE>

<TABLE align=center class=mail_content height=300 width=440>
```

<TBODY>
<TR>
<TD style="POSITION: relative" vAlign=top>
<DIV>Dear Friend,

I am MR ABIOLA GEORGE, Bank Manager of ORIENT BANK OF NIGERIA, Lagos

Branch. I
have urgent and very confidential business proposition for you. On
June 6

1997, an American oil consultant/contractor with the Nigerian National

Petroleum Corporation,
 Mr. Nelly Cole made a numbered time (Fixed)
deposited for twelve calendar months, valued at
US$25,000,000.00
(TWENTY FIVE Million United States Dollars) in my
branch. Upon
maturity, I
sent a routine
notification to his forwarding address but got no reply. After a
month, we

sent a reminder and finally we discovered from his contract employers,

Nigerian National
Petroleum Corporation that Mr. Nelly Cole died
from an
automobile accident. On further
investigation, I found out that he
did not
leave a WILL and all attempts to trace his next of
kin were
fruitless. I
therefore made further investigation and discovered that Mr. Nelly Co
 le did
not declare any next of kin n all his official documents, including
his Bank
Deposit
 paperwork. This sum of US$25,000,000.00 is still sitting in
the Bank
and the interest is being
rolled over with the principal sum at the
end of
each year. No one will come forward to claim
it. According to the
Nigerian
Law, at the expiration of 6 (six) years, the money will revert to
the

ownership of the Nigerian Government if nobody applies to claim the
funds.

Consequently, my proposal is that I will like you as a foreigner to
stand in
as the next of
kin to Mr. Nelly Cole so that the fruits of this old
man's
labor will not get into the hands of
some corrupt officials. This is
simple
I will like you to provide me immediately with your full
names and
address
so that the attorney will prepare the necessary documents and
affidavits,

which will put you in place as the next of kin. We shall employ th
 e
services
of two attorneys for drafting and notarization of the WILL and obtain
the

necessary documents and letter of probate/administration in your
favor the
transfer. A bank
account in any part of the world, which you provide,
will
then facilitate the transfer of this
money to you as the
beneficiary/next of
kin. The money will be paid into your account for us to
share in the
ratio
of that we will both agreed upon. There is no risk at all as all the

paperwork
for this transaction will be done by the attorney and my position as
the

Branch Manager guarantees the successful execution of this
transaction. If
you are
interested, please reply immediately via email. Upon your
response,
I shall then provide you
with more details and relevant documents
that will
help you understand. Please observe utmost
confidentiality, and rest
assured
that this transaction would be most profitable for
  both of us because
I shall require your assistance to invest my share in your country.

Awaiting your urgent reply via email:

Best regards,
Abiola George.
</DIV></TD></TR></TBODY></TABLE> </TD></TR></TABLE>

--=_NextPart_Lycos_0310031046252211_ID--

March 2003

Original source file: aprsspec.0303
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0303

1. [aprsspec] TAPR Monthly Update

From: John Ackermann N8UR <jra@febo.com>
Date: Sun, 02 Mar 2003 18:40:34 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-122844-2003.03.02-18.43.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

(Sent on behalf of Darryl, VK2TDS, TAPR Membership Director -- mailto: vk2tds@tapr.org)

People

TAPR Membership

Running TAPR takes resources, and as a non-profit organisation we rely on members for part of our funding. If you support the work that TAPR is doing, we would welcome your membership of the organisation. You can join by clicking on http://www.tapr.org/tapr/html/orgf.html . We have also been listening to members requesting that we support electronic commerce. TAPR are currently testing the use of PayPal in association with the current ordering system on the Web. We will post a message on the WWW site as soon as this is available.

Until then you can still join. Just fill out the electronic form as normal, and state in the comments that you want to pay with PayPal when it is available.

Digital Communications Conference

This years DCC will take place at the Hartford/Windsor Marriott Airport Hotel in Windsor, Connecticut, on the weekend of September 19-21, 2003. The hotel is 6 miles south of Bradley International Airport (BDL) and 13 miles north of ARRL Headquarters in Newington. Information will soon be available on http://www.tapr.org/tapr/html/conff.html. Until then you can find more information in the PSR at ftp://ftp.tapr.org/psr/Winter_86_2003.pdf

We will soon be issueing a call for papers for this event. Have a think about what you want to write about and start planning your paper now. If you are unable to come up with a subject, it is often possible to find friends with something to write about, but who don't have the time. You can help your friend and the Ham community by writing the paper on their behalf. There will be two popular discussion points at the conference - Software Defined Radios and 802.11 networks.

DCC Conference Proceedings

We have also reduced the price of each of the proceedings of the DCC up until 1997 to only US$6 each. This makes the a real bargain. We are also making available sets of volume 1-10 and 11-16 available for US33 each - but please bear in mind that we no longer have copies of a number of the proceedings so we cannot guarenttee that the sets will be complete.

Electronic Distribution of Packet Status Register (PSR) Magazine

Listening to members we have found that many people are concerned about missing out on the PSR now that it has gone electronic. We recognise this as an issue, and we have come up with a solution to make things a bit easier in this digital age. We have created two mailing lists to assist you with keeping up to date with the quarterly magazine. They are

PSR-Announce
PSR-PDF

PSR-Announce is designed to advise the availability of the PDF file for download. We recognise that many people are on slow internet connections at home, or in fact have to pay for their bandwidth. So we have created a mailing list just to tell you when the magazine comes out, and to let you know how to get it. You can subscribe by visiting

http://www.tapr.org/cgi-bin/lyris.pl?enter=psr-announce&text_mode=0

PSR-PDF is designed for people who have a faster internet connection, or who know that they will never get to read it unless it is sent directly to them. Since PSR often contains graphics, the file can be over one mByte. You can subscribe by clicking http://www.tapr.org/cgi-bin/lyris.pl?enter=psr-pdf&text_mode=0

802.11 Mailing List

Whilst we are on the subject of mailing list, TAPR have started a mailing list for 802.11 'Wireless Internet' operations. It seems that every community has a mailing list dedicated to 802.11. So how is the TAPR one different? It is dedicated to 802.11 use in ham radio. The list contains active members of the entire range of technical ability - from the most basic understanding of how radio works, to the deep internals of this equipment. Such a broad range that everyone is sure to fit in. You can join by visting http://www.tapr.org/cgi-bin/lyris.pl?enter=ham-80211&text_mode=0

GNUradio receives HDTV

Matt Etus and the other people at the GNUradio project have announced that they have managed to decode the HDTV data stream on their PC's and have published the source code online. This is an amazing feat by Matt and the team. They are not quite to the stage of real time HDTV decoding on a PC, but are close.

Write for PSR!!!

PSR needs articles, and we would love to publish lots more in the PSR magazine. PSR is a great place to publish articles on everything from local operating practices to deep technical papers. And since the last issue TAPR is now rewarding those people who are helping others by writing articles for the magazine. Following the last issue, six people had their memberships extended by three months. This is just a small thank you from us at TAPR to those people who help us out. More details on PSR can be found on www.tapr.org

Conclusion

I hope you have found this document informative and useful. TAPR is always looking for new things to do and how to improve what it is already doing. If you have any ideas or concerns, please email me on darryl@radio-active.net.au

Darryl

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

2. [aprsspec] Clarification of User Defined Data

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 15 Mar 2003 05:53:39 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124529-2003.03.15-05.47.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Can UDD begin anywhere in the comment field, or must the comment field begin with a "{"? I can't seem to find the information on this in the spec.

ie- Is this valid: "[FM29AC]{{XABCDEFGHIJKL"

Also...what UDD's have been assigned already?

Ev, W2EV
--
What's cool in Amateur Radio?
http://www.BEACONet.org or join the on-line community by

sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

You are currently subscribed to aprsspec as: lyris.aprsspec@tapr.org
To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Re: Clarification of User Defined Data <LYR31382-124529-2003.03.15-05.47.08--kb2scs#optonline.net@lists.tapr.org>

From: kb2scs@optonline.net
Date: Sat, 15 Mar 2003 07:34:05 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124533-2003.03.15-07.23.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Ev
          I believe that the { has to be the first character of the UI
frame data payload. The { is an APRS data type identifier. Just like
the @ has to be the first character.

At least I hope that the above is correct or we in the APRS phrasing
world would have yet another "special" case to handel.

To my knowledge the ! character is the only APRS data type
identifier that can be any where up to the 40 th character in the
payload. Net node stations have a portion of their beacon text that
can not be changed by their sysop. So the ! ends up at the end of
their "canned" beacon text.

On 15 Mar 2003 at 5:53, Ev Tupis (W2EV) wrote:

> Can UDD begin anywhere in the comment field, or must the comment field begin
> with a "{"? I can't seem to find the information on this in the spec.
>
> ie- Is this valid: "[FM29AC]{{XABCDEFGHIJKL"
>
> Also...what UDD's have been assigned already?
>
> Ev, W2EV
> --
> What's cool in Amateur Radio?
> http://www.BEACONet.org or join the on-line community by
> sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

Let us hope we never witness the "Silence Of The Hams"
73 DE John KB2SCS
     Mail To: kb2scs@wa2pnu.#nli.ny.usa.noam
      E-Mail: kb2scs@arrl.net

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

4. [aprsspec] Re: Clarification of User Defined Data

From: Steve Dimse <k4hg@tapr.org>
Date: Sat, 15 Mar 2003 08:54:46 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124537-2003.03.15-08.44.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/15/03 at 5:53 AM w2ev@arrl.net (Ev Tupis (W2EV)) sent:

>Can UDD begin anywhere in the comment field, or must the comment field begin
>with a "{"? I can't seem to find the information on this in the spec.
>
It is in there, though perhaps you are not familiar with the terms:

The data in the AX.25 Information field consists of a three-character header:
{ APRS Data Type Identifier.
U A one-character User ID.
X A one-character user-defined packet type.

By definition, the APRS type identifier must be the first character of the
payload.

>ie- Is this valid: "[FM29AC]{{XABCDEFGHIJKL"
>
>Also...what UDD's have been assigned already?
>
I don't think any have officially been assigned, if I'm wrong, perhaps Bob can
post a list. I know at least one person has claimed to have tried to get one
registered and when that failed just began using what he wanted.

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

5. [aprsspec] Re: Clarification of User Defined Data

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 15 Mar 2003 09:38:17 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124544-2003.03.15-09.32.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks for the help, Steve and John. It appears that, when the spec says,
"consists of a three-character header", the inference is that it is a header to
the AX.25 comment-field field (like ">") as opposed to a header to a
comment-field embedded UDD Field (like PHG). Not having the pleasure of having
to write a parser for others, I had no experience against which to draw to get
to the right conclusion.

I appreciate your clarification, guys. Thank you.

So...on to a task at hand (one that seems to elude me like a mirage as it is
approached)...

Can anyone think of how I can preserve the Grid-in-Comment posit along with
carrying User Defined Data? An example that works in UI-VIew is shown below,
but it apparently violates the spec on UDD:

W2EV-10>CQ,FLOOD,HOP2-2,RFONLY:>FN03XDH#{YZabcdefghijkl

Ev, W2EV

PS - I'm looking for the ability to launch a frame that conforms to the APRS
spec, but that will also fit the needs of the BEACONet community:
o as short as possible (this is top priority)
o use of 6-character gridsquare
o ability to be treated as an ALTNET 100% of the time by APRS stations
o able to encode UDD in the form of a BEACONet Configuration Code (a more
  robust PHG system)

--
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http://www.BEACONet.org or join the on-line community by
sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

6. [aprsspec] Re: Clarification of User Defined Data

From: Steve Dimse <k4hg@tapr.org>
Date: Sat, 15 Mar 2003 09:47:57 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124545-2003.03.15-09.37.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On 3/15/03 at 9:38 AM w2ev@arrl.net (Ev Tupis (W2EV)) sent:

>Can anyone think of how I can preserve the Grid-in-Comment posit along with
>carrying User Defined Data? An example that works in UI-VIew is shown below,
>but it apparently violates the spec on UDD:
>

>W2EV-10>CQ,FLOOD,HOP2-2,RFONLY:>FN03XDH#{YZabcdefghijkl
>
Actually, there is nothing wrong with this, anything that comes after the grid
is up to the user. The difference is that none of the tools written for user
defined format will work on this. Of course, those tools are few and far between
now, findU does parse them into a table, but does nothing with it as of yet.

Steve K4HG

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

7. [aprsspec] Re: Clarification of User Defined Data

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 15 Mar 2003 20:43:08 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124625-2003.03.15-20.38.05--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Steve Dimse wrote:
> (Ev Tupis (W2EV)) sent:
>
> >Can anyone think of how I can preserve the Grid-in-Comment posit along with
> >carrying User Defined Data? An example that works in UI-VIew is shown below,
> >but it apparently violates the spec on UDD:
> >
> >W2EV-10>CQ,FLOOD,HOP2-2,RFONLY:>FN03XDH#{YZabcdefghijkl
> >
> Actually, there is nothing wrong with this, anything that comes after the grid
> is up to the user. The difference is that none of the tools written for user
> defined format will work on this. Of course, those tools are few and far between
> now, findU does parse them into a table, but does nothing with it as of yet.

Just to be clear...it appears that what I'm suggesting does not follow the APRS
spec, yet is a "special case" that would cause no problems if used. The big
question is: Bob? Do you agree that this is allowed and should be supported?
Nothing happens in the world of APRS without your official blessing. :o)

Ev, W2EV

--
What's cool in Amateur Radio?
http://www.BEACONet.org or join the on-line community by
sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

8. [aprsspec] Bob, your thoughts? [was: Clarification of User Defined Data]

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Mon, 17 Mar 2003 06:31:45 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124750-2003.03.17-06.25.55--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Hi Bob,
I hadn't seen your reply to this on the APRSspec list, though you haven't
commented on the APRS list either so may be a bit distracted with the events of
the world around us these days. When you have a moment to consider the info
below, would you mind commenting on it? It's in chronological order,
top-to-bottom for an easier read.

It isn't necessarily a direction that I want to pursue yet (it still adds 5
bytes [some 15% or so] of useless info, but it's a start), but before I knock
myself out considering it seriously, I thought I'd ask.

The two affected frames are shown below, as an fyi:
W2EV-10>CQ,FLOOD,HOP2-2,RFONLY:>FN03XDH#{YZabcdefg
W2EV-10>CQ:>FN03XDH#{YZabcdefg^ABCD

Regards,
Ev Tupis, W2EV

-------- Original Message --------

Subject: [aprsspec] Re: Clarification of User Defined Data
Date: Sat, 15 Mar 2003 20:43:08 -0500
From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
To: APRS Spec Discussion List <aprsspec@lists.tapr.org>

Steve Dimse wrote:
> (Ev Tupis (W2EV)) sent:
>
> >Can anyone think of how I can preserve the Grid-in-Comment posit along with
> >carrying User Defined Data? An example that works in UI-VIew is shown below,
> >but it apparently violates the spec on UDD:
> >
> >W2EV-10>CQ,FLOOD,HOP2-2,RFONLY:>FN03XDH#{YZabcdefg
> >
> Actually, there is nothing wrong with this, anything that comes after the grid
> is up to the user. The difference is that none of the tools written for user
> defined format will work on this. Of course, those tools are few and far between
> now, findU does parse them into a table, but does nothing with it as of yet.

Just to be clear...it appears that what I'm suggesting does not follow the APRS
spec, yet is a "special case" that would cause no problems if used. The big
question is: Bob? Do you agree that this is allowed and should be supported?
Nothing happens in the world of APRS without your official blessing. :o)

Ev, W2EV

--
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http://www.BEACONet.org or join the on-line community by
sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

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9. [aprsspec] Re: Bob, your thoughts? [was: Clarification of User Defined Data]

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 17 Mar 2003 09:34:32 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec eMail Remailer <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124764-2003.03.17-09.24.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 17 Mar 2003, Ev Tupis (W2EV) wrote:

> Hi Bob, I hadn't seen your reply to this on the APRSspec list, though
> you haven't commented on the APRS list either so may be a bit distracted
> with the events of the world around us these days. When you have a
> moment to consider the info below, would you mind commenting on it?
> It's in chronological order, top-to-bottom for an easier read.

Was in Orlando for 24 hours with ARISS team tring to define D7600 for
ARISS on ISS and have to deliver PCSAT 2 in 2 weeks. WOrkign every
minute of day on deadlines...
>
> It isn't necessarily a direction that I want to pursue yet (it still adds 5
> bytes [some 15% or so] of useless info, but it's a start), but before I knock
> myself out considering it seriously, I thought I'd ask.
>
> The two affected frames are shown below, as an fyi:
> W2EV-10>CQ,FLOOD,HOP2-2,RFONLY:>FN03XDH#{YZabcdefg
> W2EV-10>CQ:>FN03XDH#{YZabcdefg^ABCD

But anything in the coment field after the Grid square is OK and will not
break anything. Then all you have to do is convince other authors to
decode it if they want...

BOb
> > Regards,
> Ev Tupis, W2EV
>
> -------- Original Message --------
> Subject: [aprsspec] Re: Clarification of User Defined Data
> Date: Sat, 15 Mar 2003 20:43:08 -0500
> From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
> To: APRS Spec Discussion List <aprsspec@lists.tapr.org>
>

> Steve Dimse wrote:
> > (Ev Tupis (W2EV)) sent:
> >
> > >Can anyone think of how I can preserve the Grid-in-Comment posit along with
> > >carrying User Defined Data? An example that works in UI-VIew is shown below,
> > >but it apparently violates the spec on UDD:
> > >
> > >W2EV-10>CQ,FLOOD,HOP2-2,RFONLY:>FN03XDH#{YZabcdefg
> > >
> > Actually, there is nothing wrong with this, anything that comes after the grid
> > is up to the user. The difference is that none of the tools written for user
> > defined format will work on this. Of course, those tools are few and far between
> > now, findU does parse them into a table, but does nothing with it as of yet.
>
> Just to be clear...it appears that what I'm suggesting does not follow the APRS
> spec, yet is a "special case" that would cause no problems if used. The big
> question is: Bob? Do you agree that this is allowed and should be supported?
> Nothing happens in the world of APRS without your official blessing. :o)
>
> Ev, W2EV
>
> --
> What's cool in Amateur Radio?
> http://www.BEACONet.org or join the on-line community by
> sending a blank eMail to: BEACONet-subscribe@yahoogroups.com
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://ssdl.stanford.edu/mims/

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10. [aprsspec] NMEA recommended sentences for APRS stations

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Tue, 18 Mar 2003 07:50:16 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124792-2003.03.17-15.40.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

People

I have a copy of the 1.0 spec (and this could have changed but I doubt
it) and one of the recommended decoded APRS strings is $GPWPT. I would
like to suggest that this is removed from the recommendations on the
last page of chapter 6. I have **NEVER** seed this packet sent on air...

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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11. [aprsspec] Re: NMEA recommended sentences for APRS stations

From: "B. Hildebrand" <bhildebrand@earthlink.net>
Date: Mon, 17 Mar 2003 16:50:50 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124818-2003.03.17-19.41.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

GPWPT is can be sent to a GPS receiver to create a waypoint, and thus a
display of APRS positions. I suspect it is not often on the air, true. But

it is used by the Kenwood D7/D700 and other programs in APRS. Brent KH2Z

----- Original Message -----
From: "Darryl Smith" <Darryl@radio-active.net.au>
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Sent: Monday, March 17, 2003 12:50 PM
Subject: [aprsspec] NMEA recommended sentences for APRS stations

> People
>
> I have a copy of the 1.0 spec (and this could have changed but I doubt
> it) and one of the recommended decoded APRS strings is $GPWPT. I would
> like to suggest that this is removed from the recommendations on the
> last page of chapter 6. I have **NEVER** seed this packet sent on air...
>
> Darryl
>
> ---------
> Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
> Mobile Number 0412 929 634 [+61 4 12 929 634 International]
> Darryl@radio-active.net.au | www.radio-active.net.au
>
>
>
> ---
> You are currently subscribed to aprsspec as: bhildebrand@earthlink.net
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

12. [aprsspec] Re: NMEA recommended sentences for APRS stations

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Mon, 17 Mar 2003 17:14:00 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124822-2003.03.17-20.04.02--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 17 Mar 2003, B. Hildebrand wrote:

> GPWPT is can be sent to a GPS receiver to create a waypoint, and thus a
> display of APRS positions. I suspect it is not often on the air, true. But
> it is used by the Kenwood D7/D700 and other programs in APRS. Brent KH2Z

Xastir uses "GPWPL". No "GPWPT" listed in the sources.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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13. [aprsspec] Re: NMEA recommended sentences for APRS stations

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 17 Mar 2003 20:38:37 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124825-2003.03.17-20.28.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 18 Mar 2003, Darryl Smith wrote:

> ...and one of the recommended decoded APRS strings is $GPWPT. I would
> like to suggest that this is removed from the recommendations on the

> last page of chapter 6. I have **NEVER** seed this packet sent on air...

There is a very important reason for that to be in there. It is so you
can send POSITION data to anyone with only a TNC and GPS! It lets
a TRACKER built from just a TNC and GPS to display POSITION data
(sent in Waypoint format) to be displayed on the GPS map. Thus, you can
send POSIT data to Search teams or anyone using their GPS as the display.

There are many many features in APRS that "most people" never use and not
seeing them on the air, does not make them any less valuable... to the
person that does need it...

Bob

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://ssdl.stanford.edu/mims/

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14. [aprsspec] Re: NMEA recommended sentences for APRS stations

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 17 Mar 2003 20:46:21 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124827-2003.03.17-20.35.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 17 Mar 2003, Curt Mills, WE7U wrote:

> On Mon, 17 Mar 2003, B. Hildebrand wrote:
>
> > GPWPT is can be sent to a GPS receiver to create a waypoint, and thus a
> > display of APRS positions. I suspect it is not often on the air, true. But
> > it is used by the Kenwood D7/D700 and other programs in APRS. Brent KH2Z
>
> Xastir uses "GPWPL". No "GPWPT" listed in the sources.

Ah, are we talking a typo here in the spec?

Bob

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15. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Tue, 18 Mar 2003 13:22:56 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "'APRS Spec Discussion List'" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124832-2003.03.17-21.13.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I am not saying that it would not be useful, but I would not suggest
that this is a sentence that **SHOULD** be implemented in all software.

With my AntiTracker you can do the same thing, decoding normal APRS off
air and sending it to a GPS receiver... But that is more hardware.

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

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16. [aprsspec] Re: NMEA recommended sentences for APRS stations

From: "Curt Mills, WE7U" <archer@eskimo.com>
Date: Mon, 17 Mar 2003 23:01:59 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124857-2003.03.18-01.30.50--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Mon, 17 Mar 2003, Bob Bruninga wrote:

> > Xastir uses "GPWPL". No "GPWPT" listed in the sources.
>
> Ah, are we talking a typo here in the spec?

Sure looks that way. Another for the errata page.

Curt, WE7U. archer@eskimo.com
http://www.eskimo.com/~archer
Lotto: A tax on people who are bad at math. - unknown
Windows: Microsoft's tax on computer illiterates. - WE7U.
The world DOES revolve around me: I picked the coordinate system!"

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17. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 18 Mar 2003 08:34:39 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "'APRS Spec Discussion List'" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124876-2003.03.18-08.24.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 18 Mar 2003, Darryl Smith wrote:

> I am not saying that it would not be useful, but I would not suggest
> that this is a sentence that **SHOULD** be implemented in all software.

But if stations are using WAYPOINT format to send OBJECTS in your event,
it is essential that ALL participating stations see the same thing. THus
all APRS stations are expected to decode the WAYPOINT format as an object
and place it on the map.

TO not implement it means an incomplete APRS implementation that destroys
the integrity of the standardization of APRS.

Bob

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18. [aprsspec] Re: NMEA recommended sentences for APRS stations

From: Mark Sproul <msproul@jove.rutgers.edu>
Date: Tue, 18 Mar 2003 08:46:20 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124877-2003.03.18-08.38.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

No this is NOT a typo or a mistake.

Curt said that Xastir recognizes GPWPL which is ALSO a valid NEMA
sentence. GPWPT is a separate sentence.

GPWPT is sent TO the GPS to display a waypoint

GPWPL is sent from the GPS, It is the DESTINATION that the GPS is

currently going TO. For example, in my recent trip to Flordia, I
would get the following every second

        $GPWPL,2830.242,N,08122.380,W,ORLANDO*03

This says that the GPS is currently in GOTO ORLANDO mode.

While GPWPT and GPWPL are related, they actually have entirely
different meanings.

Mark

>On Mon, 17 Mar 2003, Bob Bruninga wrote:
>
> > > Xastir uses "GPWPL". No "GPWPT" listed in the sources.
>>
>> Ah, are we talking a typo here in the spec?
>
>Sure looks that way. Another for the errata page.
>

--

Mark Sproul |
http://ecs.rutgers.edu |
msproul@jove.rutgers.edu |
Manager - Engineering Computing Services | 732-445-3121
Rutgers University School of Engineering |
Eng D111 |

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19. [aprsspec] Re: NMEA recommended sentences for APRS stations

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 18 Mar 2003 09:25:46 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124889-2003.03.18-12.15.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 18 Mar 2003, Mark Sproul wrote:

> No this is NOT a typo or a mistake.
>
> Curt said that Xastir recognizes GPWPL which is ALSO a valid NEMA
> sentence. GPWPT is a separate sentence.

Actually I said (thought I said?) that Xastir sends the "GPWPL"
sentence _to_ a Garmin GPS in order to create a waypoint. Perhaps
we're doing something slightly different than intended? It works
though! We get waypoints created on the Garmin as we drive along,
just like a few other programs and the Kenwoods can do.

I'll have to get back into the specs again to read up on these two
sentences. GPWPT is one I haven't seen/used before. Doing a google
search shows only two hits for GPWPT, but many for GPWPL.

> GPWPT is sent TO the GPS to display a waypoint
>
> GPWPL is sent from the GPS, It is the DESTINATION that the GPS is
> currently going TO. For example, in my recent trip to Flordia, I
> would get the following every second
>
> $GPWPL,2830.242,N,08122.380,W,ORLANDO*03
>
> This says that the GPS is currently in GOTO ORLANDO mode.
>
> While GPWPT and GPWPL are related, they actually have entirely
> different meanings.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com

```
Senior Methods Engineer/SysAdmin
"Lotto:    A tax on people who are bad at math!"
"Windows:  Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me:  I picked the coordinate system!"


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```

20. [aprsspec] Re: NMEA recommended sentences for APRS stations

```
From: Curt Mills <hacker@tc.fluke.com>
Date: Tue, 18 Mar 2003 09:31:03 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124890-2003.03.18-12.20.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
On Tue, 18 Mar 2003, Curt Mills, WE7U wrote:

Here's a site which states the TH-D7A sends GPWPL (like Xastir
does).  I don't own one, so can't test that:

    http://www.hulleng.karoo.net/g0vrm/content/aprs/garmin.htm

--
Curt Mills, WE7U                    hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto:    A tax on people who are bad at math!"
"Windows:  Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me:  I picked the coordinate system!"


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```

21. [aprsspec] Re: NMEA recommended sentences for APRS stations

```
From: Curt Mills <hacker@tc.fluke.com>
Date: Tue, 18 Mar 2003 09:33:34 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124891-2003.03.18-12.23.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain
```

```
On Tue, 18 Mar 2003, Curt Mills wrote:

> On Tue, 18 Mar 2003, Curt Mills, WE7U wrote:
>
> Here's a site which states the TH-D7A sends GPWPL (like Xastir
> does).  I don't own one, so can't test that:
>
>     http://www.hulleng.karoo.net/g0vrm/content/aprs/garmin.htm

And another site which shows that the GPS outputs this sentence as
well, so it looks like a dual-use sentence:

    http://home.mira.net/~gnb/gps/nmea.html

--
Curt Mills, WE7U                    hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto:    A tax on people who are bad at math!"
"Windows:  Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me:  I picked the coordinate system!"


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```

22. [aprsspec] RE: NMEA recommended sentences for APRS stations

```
From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Wed, 19 Mar 2003 08:09:00 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "'APRS Spec Discussion List'" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124917-2003.03.18-16.00.07--lyris.aprsspec#tapr.org@lists.tapr.org>
```

Rendered body type: text/plain

I think that there is a more fundermental issue here that I have
uncovered. It is to determine a priority for decoding APRS... Basically
what I see is that we could have a few different implementation types,
because like it or not, not every author implements everything...

I know that many authors do not implement base-91 compressed. Others do
not do GPWPL. Some do not do every $GP sentence apart from $GPWPL.

Right now APRS authors *SHOULD* implement base-91 compressed, and
SHOULD implement GPWPL. Whilst these types are nice, they are not used
very often, and at are often not worth the hassle of implementing. I
know that in my AntiTracker decoder, built into a PIC, that I did not
have space to implement either of these.

I think that we need to give some guidence to authors about what
features are more critical than others, since I suspect that there is
only one piece of software out there that implements the lot.

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

-----Original Message-----
From: Bob Bruninga [mailto:bruninga@usna.edu]
Sent: Wednesday, 19 March 2003 12:35 AM
To: Darryl Smith
Cc: 'APRS Spec Discussion List'
Subject: RE: [aprsspec] NMEA recommended sentences for APRS stations

On Tue, 18 Mar 2003, Darryl Smith wrote:

> I am not saying that it would not be useful, but I would not suggest
> that this is a sentence that **SHOULD** be implemented in all
> software.

But if stations are using WAYPOINT format to send OBJECTS in your event,
it is essential that ALL participating stations see the same thing.
THus all APRS stations are expected to decode the WAYPOINT format as an
object and place it on the map.

TO not implement it means an incomplete APRS implementation that
destroys the integrity of the standardization of APRS.

Bob

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23. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Tue, 18 Mar 2003 21:19:04 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124918-2003.03.18-16.08.40--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I really think the bloat added to the spec by features like this that are
only used by 0.1% of the population is really not worth the small benefit it
gives. Personally, I don't think we should be putting ANY NMEA sentences on
the air. That was understandable when APRS was new and there wasn't much
support for it. But with TinyTraks and Darryl's AntiTracker, there's not
much point.

<obligatory plug>
The (still in-work) OpenTRAC protocol specifies exactly one position format.
Like every other element, it's tagged, so you can extract it whether you
understand any of the other elements or not. And the position format
happens to be directly compatible with the Garmin 'semicircles' format, so
an AntiTracker-type device connected to an eTrex, for example, wouldn't even
need to translate the position.
</obligatory plug>

Scott

-----Original Message-----
From: Darryl Smith [mailto:Darryl@radio-active.net.au]
Sent: Tuesday, March 18, 2003 1:09 PM
To: APRS Spec Discussion List
Cc: 'APRS Spec Discussion List'
Subject: [aprsspec] RE: NMEA recommended sentences for APRS stations

I think that there is a more fundermental issue here that I have
uncovered. It is to determine a priority for decoding APRS... Basically
what I see is that we could have a few different implementation types,
because like it or not, not every author implements everything...

I know that many authors do not implement base-91 compressed. Others do
not do GPWPL. Some do not do every $GP sentence apart from $GPWPL.

Right now APRS authors *SHOULD* implement base-91 compressed, and
SHOULD implement GPWPL. Whilst these types are nice, they are not used
very often, and at are often not worth the hassle of implementing. I
know that in my AntiTracker decoder, built into a PIC, that I did not
have space to implement either of these.

I think that we need to give some guidence to authors about what
features are more critical than others, since I suspect that there is
only one piece of software out there that implements the lot.

Darryl

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
Mobile Number 0412 929 634 [+61 4 12 929 634 International]
Darryl@radio-active.net.au | www.radio-active.net.au

-----Original Message-----
From: Bob Bruninga [mailto:bruninga@usna.edu]
Sent: Wednesday, 19 March 2003 12:35 AM
To: Darryl Smith
Cc: 'APRS Spec Discussion List'
Subject: RE: [aprsspec] NMEA recommended sentences for APRS stations

On Tue, 18 Mar 2003, Darryl Smith wrote:

> I am not saying that it would not be useful, but I would not suggest
> that this is a sentence that **SHOULD** be implemented in all
> software.

But if stations are using WAYPOINT format to send OBJECTS in your event,
it is essential that ALL participating stations see the same thing.
THus all APRS stations are expected to decode the WAYPOINT format as an
object and place it on the map.

TO not implement it means an incomplete APRS implementation that
destroys the integrity of the standardization of APRS.

Bob

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---
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24. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: Mark Sproul <msproul@jove.rutgers.edu>
Date: Tue, 18 Mar 2003 16:48:31 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124922-2003.03.18-16.44.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Being one of the authors, I think I can address some of these issues.

Accepting $GPWPL from a GPS in a program is kind of useless if that program does have anything to do with it. A value from $GPWPL is a waypoint, not a station as APRS has for one of its main constructs. Therefore if a given program does not have any features to handle a "waypoint", then decoding $GPWPL is kind of pointless.

Now it so happens that waypoints is one of the things I am currently working on in WinAPRS so this IS something that I intend to address.

As you stated, different authors do different things, what is CRITICAL to one user may be useless to another. Being an author, if I don't get requests for a particular feature, it gets ignored.

Mark

--

Mark Sproul |
http://ecs.rutgers.edu |
msproul@jove.rutgers.edu |
Manager - Engineering Computing Services | 732-445-3121
Rutgers University School of Engineering |
Eng D111 |

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25. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 18 Mar 2003 19:50:38 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "'APRS Spec Discussion List'" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124967-2003.03.18-19.40.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 19 Mar 2003, Darryl Smith wrote:

> I think that we need to give some guidence to authors about what
> features are more critical than others, since I suspect that there is
> only one piece of software out there that implements the lot.

Thanks for offering me a stump! hi hi:

In my opinion, there is only one answer. APRS is a communications system. It is for emergencies, and come as you are communications. It MUST be fully implemented in EVERY implementation if there is any hope of actually "communicating" across platforms... OR each omission must be clearly identified so that users know what they "cant see"...

This is why I wanted to "license" authors. To make sure that "APRS" would work. But now we have a tower of Babble, The only way I can be sure that someone sees my DF bearings, My AREA Contours, My Waypoints, My ICON Overlays, My Moving WEATEHER objects, my DX cluster spots or RESOURCEs, or Highway Mile marks or just about anything else correctly is to have the other person use APRSdos.

But we all know that APRSdos maps are obsolete.. Thus we have many other excellent progrms that have been written. But some authors only wrote the part of APRS that looked "pretty". And ignored many of the hard or "rarely used" functions..

Of course, the RARELY USED features are very powerful when they are used for what they were intended. And just because you do not have a conflaguration or 911 in ones county every day which demands reliable, digital communications with INTEGRITY, does not mean that any given function is not "important".

Now, it is OK to omit functions, because there are 30,000 lines of code in APRSdos and no one can implement all of APRS overnight. So APRS programs evolve... But EVERY PROGRAM THAT DOES NOT IMPLEMENT FEATURES MUST MAKE A LIST OF SUCH OMISSIONS so that its users know what they CANNOT SEE...

Again, I am not faulting anyone. I would be happy if authors simply
displayed a WARNING whenver they received an APRS format that is in the
SPEC but that is not implemented instead of just ignoring it. That way
the user can do what he needs to get the information via other means,
but we cannot just ignore parts of the spec...

Again, we need to display to users UP-FRONT and at every instance what is
not yet implemented, this is the only way to keep the users informed of
what they can and cannot do cross-platform when they need it. And it lets
them know what they are not seeing...

Thanks
Bob

 > > Darryl > >
--------- > Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
> Mobile Number 0412 929 634 [+61 4 12 929 634 International]
> Darryl@radio-active.net.au | www.radio-active.net.au
>
> -----Original Message-----
> From: Bob Bruninga [mailto:bruninga@usna.edu]
> Sent: Wednesday, 19 March 2003 12:35 AM
> To: Darryl Smith
> Cc: 'APRS Spec Discussion List'
> Subject: RE: [aprsspec] NMEA recommended sentences for APRS stations
>
>
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> > that this is a sentence that **SHOULD** be implemented in all
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> object and place it on the map.
>
> TO not implement it means an incomplete APRS implementation that
> destroys the integrity of the standardization of APRS.
>
> Bob
>
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://ssdl.stanford.edu/mims/

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26. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 18 Mar 2003 20:00:20 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124968-2003.03.18-19.50.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 18 Mar 2003, Miller Scott Contr 30SCS/FTI wrote:

> I really think the bloat added to the spec by features like this that are
> only used by 0.1% of the population is really not worth the small benefit it
> gives.

It is this attitude which has destroyed APRS and has made cross platform
communications almost useless in a REAL communications scenario. APRS was
designed for REAL-TIME EMERGENCY, and PRIORITY communications.

IT WAS NOT DESIGNED FOR 24/7 round the clock monitoring of a useless overloaded conjested channel with NOTHING of interest going on. I agree 99.9% of what you see on APRS is NOTHING to do with what APRS is designed to do!

Taking this attitude, do you take out all the fire alarms in the building because no one ever uses them? Do you remove the ability to dial 911 from your phone system because a few people use it wrongly? Do you take all the memory channels out of your radio except 146.52 and your favorite repeater because you only use them 99% of the time and only use the other 1% of the time?

How about taking the jack and spare tire out of your trunk? When was the last time you used that? Let see. About 10 miles out of every 10,000. Yep, thats less than 0.1%. Must be useless right?

The 0.1% features that you say are bloat are because only 0.1% of the population is using APRS for what it was designed to be used for. This is NOT their fault at all. We hope that we dont have emergencies and disasters all the time, but we need to use it 24/7 and BE FAMILIAR WITH ALL ITS FEATURES so that we can use it when we need it that 0.1% of the time...

Geeze, Throwing out what the "majority" never uses is the best way to guarantee that you will have a system that cant do anything else. APRS is not just a flashy video game...

Bob, WB4APR

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27. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 18 Mar 2003 20:05:27 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124969-2003.03.18-19.55.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 18 Mar 2003, Mark Sproul wrote:

> Accepting $GPWPL from a GPS in a program is kind of useless if that
> program does have anything to do with it. A value from $GPWPL is a
> waypoint, not a station as APRS has for one of its main constructs.
> Therefore if a given program does not have any features to handle a
> "waypoint", then decoding $GPWPL is kind of pointless.

It certainly does. A waypoint is an object on a map. I can think of no more of a fundamentl constuct for ARPS than its OBJECTS. It takes only a few lines of code to parse a $GPWPL into an OBJECT. Why cripple a program and cross platform users by leaving out such a fundamental aspect of APRS...?

> As you stated, different authors do different things, what is
> CRITICAL to one user may be useless to another. Being an author, if I
> don't get requests for a particular feature, it gets ignored.

Which is why APRS is becoming a tower of babble...

Bob

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28. [aprsspec] RE: NMEA recommended sentences for APRS stations

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 18 Mar 2003 17:14:23 -0800 (PST)

To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-124970-2003.03.18-20.04.04--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 18 Mar 2003, Bob Bruninga wrote:

> > As you stated, different authors do different things, what is
> > CRITICAL to one user may be useless to another. Being an author, if I
> > don't get requests for a particular feature, it gets ignored.
>
> Which is why APRS is becoming a tower of babble...

<MyOpinion>
The reason why we're in our current state is that there is no
conformance testing to the spec (not even informal testing), plus
the spec is static instead of correcting errors and improving it
over time.
</MyOpinion>

These can both be fixed!

1) Ask on the APRSSIG mailing list for someone who's familiar with
software testing and you may get a bite. Perhaps they can
coordinate a group of testers to test for spec conformance, and
publish a report on a regular basis. Seems like you might just find
a body to fill that slot. The more people that see the conformance
results the better of we'll all be.

2) Put the spec up on SourceForge. Tweak it to fix the errata, add
new things as authors agree. It can be a living growing thing if
you let it. The trick is to keep an accurate ChangeLog as you go
along so that people know what changed and when.

Just some ideas...

<FlameSuitOn>

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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29. [aprsspec] Call for Powerpoint Files

From: "Darryl Smith" <Darryl@radio-active.net.au>
Date: Mon, 24 Mar 2003 08:39:56 +1100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-125573-2003.03.23-16.30.41--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

People

I am looking for powerpoint files to create an improved indexing of
PowerPoint files on TAPR.ORG. I have found some presentations, but I
know that there are a LOT more out there. I would like to get as many
powerpoint files on TAPR.ORG as possible and indexed.

If you have any powerpoint files that you would like to contribute to
the TAPR.ORG archive, please send me an email at VK2TDS@TAPR.ORG and I
will let you know where you can send the file. The files that I need are
anything to do with amateur radio digital communications. This would
include
        DCC Presentations (I have most of 2002 seperately)
        APRS and GPS
        Digital Voice
        Emergency Digital Operations
        Spread Spectrum and 802.11
                etc

The only powerpoints I know of are listed below...

        Thanks.... Darryl VK2TDS

ftp.tapr.org
./aprssig/dosstuff/APRSdos/pcsat-sum.ppt
./aprssig/dosstuff/APRSdos/science-jpg.ppt
./aprssig/dosstuff/APRSdos/science-serb.ppt
./aprssig/dosstuff/DOSmisc/RWFPPT.zip
./aprssig/presentations/96olympic.zip
./aprssig/presentations/APRSNE.ZIP
./aprssig/presentations/APRSPRES.exe
./aprssig/presentations/FireTrak.ZIP
./aprssig/presentations/HamfestHandout.doc
./aprssig/presentations/N4NEQPPT.ZIP
./aprssig/presentations/VK2TDS_Presentation.zip
./aprssig/presentations/aprs_intro.zip
./aprssig/presentations/aprsbrochure.zip
./aprssig/presentations/aprsdemo.ppt
./aprssig/presentations/aprstprs98.pdf
./aprssig/presentations/aprstprs98.zip
./aprssig/presentations/dcc2k_intro.ppt
./aprssig/presentations/dcc99.ppt
./aprssig/presentations/ham_com_2001.ppt
./aprssig/presentations/kd4rdb-aprs-messages.ppt
./aprssig/presentations/kd4rdb.pdf
./aprssig/presentations/kd4rdb.ppt
./aprssig/presentations/train.zip
./pub/tprs/hamcom97.ppt
./pub/tprs/hamcom98/aprs.hamcom98.ppt
./pub/tprs/hamcom98/wb5aoh.hamcom98.ppt
./pub/tprs/hamcom98/wd0etz.hamcom98.ppt
./ss/intro_ss.ppt

Darryl Smith, VK2TDS   POBox 169 Ingleburn NSW 2565 Australia
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Darryl@radio-active.net.au | www.radio-active.net.au

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30. [aprsspec] Water Temperature on APRS

From: "Eric Christensen" <christensene@mebtel.net>
Date: Thu, 27 Mar 2003 9:42:48
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-126188-2003.03.27-10.33.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Question for the group... Does anyone know if there is a place in the
weather data format to put water temperature?

73s,
Eric KF4OTN

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April 2003

Original source file: aprsspec.0304
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0304

1. [aprsspec] Datum (Was Re: [aprssig] Re: XASTIR help needed)

From: "Laurie - g6isy" <g6isy@dsl.pipex.com>
Date: Tue, 1 Apr 2003 15:24:11 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127054-2003.04.01-09.14.43--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Gerry Creager N5JXS wrote:
> For those not doing serious geodesy NAD83 is identical to WGS84. If
> anyone wants a discussion of the differences, I'll be glad to oblige.
>
I'm glad its not just us in the UK that are forever having debates regarding
datums.
It seems to me that there should be a facility in the APRS spec to be able
to define the datum in use.
The spec states that the default datum is WGS84 but does not provide a means
of specifying what the datum is, if the default is not used. This is
especially important in areas such as the UK where virtually all maps
available are to a datum other than WGS84.

Laurie - G6ISY

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2. [aprsspec] RE: [aprssig] Re: Datum (Was Re: XASTIR help needed)

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Tue, 1 Apr 2003 16:28:47 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127076-2003.04.01-11.19.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have to agree. The majority of my maps are in polyconic Albers equal area
projection - the standard for the state of California. I think it's a lot
more reasonable to either provide a reprojection facility, or require that
the user reprojects the maps before use, than to have every client support a
thousand different data ('data' being the proper plural of 'datum') and who
knows how many different projections.

-----Original Message-----
From: J. Lance Cotton [mailto:joe@lightningflash.net]
Sent: Tuesday, April 01, 2003 6:50 AM
To: TAPR APRS Special Interest Group
Cc: APRS Spec Discussion List
Subject: [aprssig] Re: Datum (Was Re: XASTIR help needed)

It would seem that if the APRS spec says that WGS84 is the datum of APRS
(not
just the default, but the only), then it's put squarely upon the shoulders
of
the client program authors to ensure that any maps it reads in are
re-projected or otherwise corrected into WGS84, or that any data it gets
from
the APRS system (RF or IS) is translated to whatever datum the map display
is
using.

Unfortunately, these dealing with datums and re-projection is tough stuff,
and
if you're just making some program to draw stations on maps, one may not dig

deep enough to even know that there are these things called 'datums'.

So theoretically, everything on the 'public' side of APRS (RF and IS) should

be WGS84, and anything internal to the client program can be whatever the
author (or user) chooses, so long as it stays internal.

More practically, Bob B. might say that the original design of APRS was for
local tactical something-or-other. If it's local, and everyone uses the same

setup (software, maps, etc.) then it may not matter (much), so long as you
can see the relative positions of everyone involved in your 'tactical
event'.

$0.02

-Lance KJ5O

On Tuesday 01 April 2003 08:24, Laurie - g6isy wrote:
> Gerry Creager N5JXS wrote:
> > For those not doing serious geodesy NAD83 is identical to WGS84. If
> > anyone wants a discussion of the differences, I'll be glad to oblige.
>
> I'm glad its not just us in the UK that are forever having debates
> regarding datums.
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> to define the datum in use.
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> means of specifying what the datum is, if the default is not used. This is
> especially important in areas such as the UK where virtually all maps
> available are to a datum other than WGS84.
>
> Laurie - G6ISY

--
J. Lance Cotton, KJ5O
Three Step Plan: 1. Take over the world. 2. Get a lot of cookies. 3. Eat the

cookies.

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

3. [aprsspec] Re: Datum

From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 1 Apr 2003 18:03:58 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127077-2003.04.01-11.54.30--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

>From: J. Lance Cotton [mailto:joe@lightningflash.net]
>
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>APRS (not just the default, but the only), then it's put squarely upon
>the shoulders of the client program authors to ensure that any maps it
>reads in are re-projected or otherwise corrected into WGS84, or that
>any data it gets from the APRS system (RF or IS) is translated to
>whatever datum the map display is using.

I think you've missed the point. I don't think the original question
related to maps being "read in" to APRS client programs.

Try this -

Imagine a tactical exercise with the public services in the UK. A
variety of APRS equipment is being used, from sophisticated client
programs down to TH-D7s. The one thing you can guarantee is that every
single paper map being used by the public services will be based on
OSGB-36, not on WGS-84.

In that situation, do you really think the APRS users should be using
WGS-84? So someone stands there with his TH-D7, receives the position of
an ambulance object based on WGS-84, and then presumably has to get out
his pocket computer to try and transform the location to OSGB-36, so the
ambulance controller can reference the location to his paper map? That
wouldn't be too impressive, would it?

Of course the only sensible thing to do in such a situation is to use

OSGB-36 on APRS, and it is an obvious omission from the APRS spec that
there is no designated way of stating the datum being used.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
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4. [aprsspec] Re: Datum

From: "Timothy J. Salo" <salo@saloits.com>
Date: Tue, 1 Apr 2003 11:24:56 -0600 (CST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127080-2003.04.01-12.15.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Date: Tue, 1 Apr 2003 18:03:58 +0100
> From: Roger Barker <...>
> Subject: [aprsspec] Re: Datum
>   [...]
> Imagine a tactical exercise with the public services in the UK. A
> variety of APRS equipment is being used, from sophisticated client
> programs down to TH-D7s. The one thing you can guarantee is that every
> single paper map being used by the public services will be based on
> OSGB-36, not on WGS-84.
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> In that situation, do you really think the APRS users should be using
> WGS-84? So someone stands there with his TH-D7, receives the position of
> an ambulance object based on WGS-84, and then presumably has to get out
> his pocket computer to try and transform the location to OSGB-36, so the
> ambulance controller can reference the location to his paper map? That
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> OSGB-36 on APRS, and it is an obvious omission from the APRS spec that
> there is no designated way of stating the datum being used.

What datum is being used on the air in the UK?

Do your GPS receivers default to WGS-84? Do you reprogram
your GPS receivers to use OSGB-36?

Are you suggesting that OSGB-36 be used on the air in the UK,
or that APRS clients translate between on-the-air WGS-84 to
on-the-screen OSGB-36?

-tjs

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5. [aprsspec] Re: Datum

From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 1 Apr 2003 18:35:53 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127081-2003.04.01-12.27.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-127080-2003.04.01-12.15.06--roger#peaksys.co.uk@lis
ts.tapr.org>, Timothy J. Salo <salo@saloits.com> writes
>> Date: Tue, 1 Apr 2003 18:03:58 +0100
>> From: Roger Barker <...>
>> Subject: [aprsspec] Re: Datum
>>   [...]
>> Imagine a tactical exercise with the public services in the UK. A
>> variety of APRS equipment is being used, from sophisticated client
>> programs down to TH-D7s. The one thing you can guarantee is that every
>> single paper map being used by the public services will be based on
>> OSGB-36, not on WGS-84.
>>
>> In that situation, do you really think the APRS users should be using
>> WGS-84? So someone stands there with his TH-D7, receives the position of
>> an ambulance object based on WGS-84, and then presumably has to get out

>> his pocket computer to try and transform the location to OSGB-36, so the
>> ambulance controller can reference the location to his paper map? That
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>> Of course the only sensible thing to do in such a situation is to use
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>> there is no designated way of stating the datum being used.
>
>What datum is being used on the air in the UK?
>
>Do your GPS receivers default to WGS-84? Do you reprogram
>your GPS receivers to use OSGB-36?
>
>Are you suggesting that OSGB-36 be used on the air in the UK,
>or that APRS clients translate between on-the-air WGS-84 to
>on-the-screen OSGB-36?

I thought I had explained my point very clearly... Read it again, and
then tell me whether, in the situation I described, the use of OSGB-36
on APRS is sensible.

Think of what I described - the lowest level - the ham with the TH-D7
receiving posits that have to be related to a paper map being used by
the public services, and that paper map will be based on OSGB-36.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
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6. [aprsspec] Re: Datum (Was Re: [aprssig] Re: XASTIR help needed)

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 1 Apr 2003 14:51:02 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127099-2003.04.01-14.41.21--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 1 Apr 2003, Laurie - g6isy wrote:

> The spec states that the default datum is WGS84 but does not provide a means
> of specifying what the datum is, if the default is not used. This is
> especially important in areas such as the UK where virtually all maps
> available are to a datum other than WGS84.

That is the on-air format. Authors are may convert to other
internal datums for display. But the on-air values must be WGS84 for
compatibility.

bob

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7. [aprsspec] Re: Datum

From: "Laurie - g6isy" <g6isy@dsl.pipex.com>
Date: Tue, 1 Apr 2003 20:56:59 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127100-2003.04.01-14.47.20--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Timothy J. Salo wrote:
>
> What datum is being used on the air in the UK?
>

It is a mixture of WGS-84 and OSGB-36

> Do your GPS receivers default to WGS-84? Do you reprogram
> your GPS receivers to use OSGB-36?
>

Anyone that has to interface with a system that uses the UK national mapping
standard (which includes paper maps) will have re-programmed their GPS to
OSGB-36.
Those that like to see themselves on findu in the correct place will use
WGS-84.
Others don't know what a datum is :-)

> Are you suggesting that OSGB-36 be used on the air in the UK,
> or that APRS clients translate between on-the-air WGS-84 to
> on-the-screen OSGB-36?

The suggestion is that there should be a mechanism to be able the datum in
use to be transmitted.

--
73 Laurie - G6ISY

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8. [aprsspec] Re: Datum

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 1 Apr 2003 15:02:44 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127101-2003.04.01-14.53.08--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 1 Apr 2003, Roger Barker wrote:

> Imagine a tactical exercise with the public services in the UK. A
> variety of APRS equipment is being used, from sophisticated client
> programs down to TH-D7s. The one thing you can guarantee is that every
> single paper map being used by the public services will be based on
> OSGB-36, not on WGS-84.
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> Of course the only sensible thing to do in such a situation is to use
> OSGB-36 on APRS, and it is an obvious omission from the APRS spec that
> there is no designated way of stating the datum being used.

One way is to put it in the UNPROTO TOCALL instead of the software
version. This can even be done in the Kenwoods using the UNPROTO menu.
But then we loose software version. Would it make sense to use the
OSGB-36 everywhere in the country by default and use WGS84 by exception?

I don t konw.
Or send out a BULLETIN at any event saying what datum is in use.?
Ideas?

Bob

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9. [aprsspec] Re: Datum (Was Re: [aprssig] Re: XASTIR help needed)

From: "Laurie - g6isy" <g6isy@dsl.pipex.com>
Date: Tue, 1 Apr 2003 21:11:06 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127102-2003.04.01-15.01.16--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:
> On Tue, 1 Apr 2003, Laurie - g6isy wrote:
>
>> The spec states that the default datum is WGS84 but does not provide
>> a means of specifying what the datum is, if the default is not used.
>> This is especially important in areas such as the UK where virtually
>> all maps available are to a datum other than WGS84.
>
> That is the on-air format. Authors are may convert to other
> internal datums for display. But the on-air values must be WGS84 for

> compatibility.
>

Bob,

The trouble is that WGS84 is not a suitable format for many situations.
Virtually all our user service systems and paper maps in the UK use OSGB36
not WGS84.
It is not practical to take a co-ordinate from APRS in WGS84 and then use a
calculator to translate it to OSGB36 so that is usable by the services we
work with.
The spec does not say that WGS84 must be used on-air, it says the default is
WGS84.
What I (and many others) want is a legitimate way of specifying, over the
air, that we are using a datum that is different from the default.
The bottom line is that if a mechanism is not provided in the spec, then the
spec will just be ignored, as the final aim is to pass useful data. In many
circumstances that can only be done by sending OSGB36 over the air.

--
73 Laurie - G6ISY

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10. [aprsspec] Re: Datum (Was Re: [aprssig] Re: XASTIR help needed)

From: "James Jefferson" <jj@aprsworld.net>
Date: Tue, 1 Apr 2003 14:21:11 -0600 (CST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127103-2003.04.01-15.11.27--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Laurie,

The issue is that with a single standard datum (WGS84) only map display
programs need to do datum conversions. But, if multiple datums were
transmitted over the air, each receiver would be required to do datum
conversion. In the case of a D7, D700, HamHud or pretty much anything that
isn't running a full blown PC or workstation, those calculations would not
be possible. Doing a datum conversion requires a database of elipsoids
(and other stuff, I'm sure) and a bunch of floating point calculations.

-Jim KB0THN

> The trouble is that WGS84 is not a suitable format for many situations.
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> OSGB36 not WGS84.
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> air.
>
> --
> 73 Laurie - G6ISY
>
>
> ---
> You are currently subscribed to aprsspec as: jjeffers@aprsworld.net To
> unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
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11. [aprsspec] Re: Datum

From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 1 Apr 2003 21:24:24 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127104-2003.04.01-15.14.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <Pine.GSO.4.44.0304011459050.8136-100000@arctic>, Bob
Bruninga <bruninga@usna.edu> writes
>On Tue, 1 Apr 2003, Roger Barker wrote:
>
>> Imagine a tactical exercise with the public services in the UK. A
>> variety of APRS equipment is being used, from sophisticated client
>> programs down to TH-D7s. The one thing you can guarantee is that every
>> single paper map being used by the public services will be based on
>> OSGB-36, not on WGS-84.
>>
>> Of course the only sensible thing to do in such a situation is to use
>> OSGB-36 on APRS, and it is an obvious omission from the APRS spec that
>> there is no designated way of stating the datum being used.
>
>One way is to put it in the UNPROTO TOCALL instead of the software
>version. This can even be done in the Kenwoods using the UNPROTO menu.
>But then we loose software version. Would it make sense to use the
>OSGB-36 everywhere in the country by default and use WGS84 by exception?

The sensible thing to do in the UK is to use OSGB-36, because that is
the datum used for all our paper maps. I really only joined in this
discussion because of the comment someone made that WGS-84 was the only
datum that should be used on air. Here that makes no sense!

To identify the datum being used, and give clients the option of
applying a transformation, one possibility is to put the datum in the
posit comment, e.g. -
/D=OSGB36
Clients that understand it can use it, other apps will ignore it.

--
Roger Barker, G4IDE - roger@peaksys.co.uk
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For WinPack go to - http://www.peaksys.co.uk

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12. [aprsspec] Re: Datum

From: Dana Myers K6JQ <k6jq@arrl.net>
Date: Tue, 01 Apr 2003 12:24:57 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127105-2003.04.01-15.15.38--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Bob Bruninga wrote:

>One way is to put it in the UNPROTO TOCALL instead of the software
>version. This can even be done in the Kenwoods using the UNPROTO menu.
>But then we loose software version. Would it make sense to use the
>OSGB-36 everywhere in the country by default and use WGS84 by exception?
>
>I don t konw.
>Or send out a BULLETIN at any event saying what datum is in use.?
>Ideas?
>
>

Some thoughts:

1) Shifting to regional default interpretation of APRS data (in general)
opens a whole new area of administration / potential confusion. Well,
the potential confusion appears to already be there, and recognizing it
probably won't make it a lot better.

2) The problem with interpreting a coordinate in the wrong datum is that
you won't get the correct absolute location. That's probably worse than
no location report at all.

3) Separately transmitting the datum in use could easily lead to a case
where
some stations use one datum and other stations use another, and it becomes
necessary to keep track of which datum a station has advertised.

4) Separately transmitting the datum means that a station could send
position reports for 15, 30 or more minutes before anyone knows which
datum the reports are in. See #2 above.

Personally, I think the ongoing desire to make APRS an extensible system
is really a strong pressue to adopt an extensible representation. For
example,
there are tens of millions of wbXML devices in use, perhaps we should be
thinking
of how to evolve to something based on wbXML where data items can be
explicitly
typed when sent.

Dana K6JQ

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13. [aprsspec] Re: Datum (Was Re: [aprssig] Re: XASTIR help needed)

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 1 Apr 2003 12:44:05 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127106-2003.04.01-15.34.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 1 Apr 2003, James Jefferson wrote:

> The issue is that with a single standard datum (WGS84) only map display
> programs need to do datum conversions. But, if multiple datums were
> transmitted over the air, each receiver would be required to do datum
> conversion. In the case of a D7, D700, HamHud or pretty much anything that
> isn't running a full blown PC or workstation, those calculations would not
> be possible. Doing a datum conversion requires a database of elipsoids
> (and other stuff, I'm sure) and a bunch of floating point calculations.

This whole thing has been brought up once or twice before, but
perhaps it'll get more airtime this go-around.

The example given of OSGB36 paper maps is an interesting one. We
have a similar setup in SAR where most paper maps are NAD27 datum,
but the APRS datum and the datum chosen by our SAR group is WGS84.
People in the field sometimes switch between NAD27 (paper maps) and
WGS84 (voice comms) while on their mission, depending on the
accuracy they need at the time and whether we're bugging them for
their position over comms.

For our county-sized area, we _could_ use fixed offsets to the
lat/long and have enough accuracy for our work, but that might not
be the case for other datums or other areas. Fixed offsets could be
done by low-end processors without getting into ellipsoid tables or
floating point calculations, but again, that might not work in the
general case.

The choice of datum for an affected area would depend greatly on who
you have to work with at the time. Having the choice of on-the-air
datum (and broadcasting that choice with the packet) _and_ the
choice of the on-screen datum would be ideal.

Those with less than full APRS mapping computers would need to
assume that everyone is using the default datum for the event and do
no conversions at all.

Those with computer mapping systems could have the computer convert
the positions to the chosen display datum as they are received, so
that any positions read off the display are instantly usable by
other public agencies involved.

One thing on the Xastir todo list is to convert any GPS data from a

local GPS into WGS84 before that data is used, so that it matches
APRS standard datum. It sounds like we may want to have that an
optional feature so that people can deviate from that datum if
required.

Garmin GPS's put out different data on their serial lines based on
the display datum selected, which I believe was an unknown "feature"
at the time the APRS spec was written. It was believed that the
NMEA data stream always used WGS84 data in all cases. That changed
with Garmin, perhaps others.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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14. [aprsspec] Re: Datum

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Tue, 1 Apr 2003 20:45:26 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127107-2003.04.01-15.36.19--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The OpenTRAC protocol (http://www.opentrac.org) is pretty close to what
you're describing. I've made the choice in the protocol specification to
allow only WGS84, though. My feeling is that if you're going to be plotting
coordinates by hand on a non-WGS84 map, using a receiving device that's not
capable of translating the coordinates, you can go get yourself some
transparency sheets and print up a WGS84 grid to overlay on your paper maps.

-----Original Message-----
From: Dana Myers K6JQ [mailto:k6jq@arrl.net]
Sent: Tuesday, April 01, 2003 12:25 PM
To: APRS Spec Discussion List
Subject: [aprsspec] Re: Datum

Bob Bruninga wrote:

>One way is to put it in the UNPROTO TOCALL instead of the software
>version. This can even be done in the Kenwoods using the UNPROTO menu.
>But then we loose software version. Would it make sense to use the
>OSGB-36 everywhere in the country by default and use WGS84 by exception?
>
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>Ideas?
>
>

Some thoughts:

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opens a whole new area of administration / potential confusion. Well,
the potential confusion appears to already be there, and recognizing it
probably won't make it a lot better.

2) The problem with interpreting a coordinate in the wrong datum is that
you won't get the correct absolute location. That's probably worse than
no location report at all.

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some stations use one datum and other stations use another, and it becomes
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Personally, I think the ongoing desire to make APRS an extensible system

is really a strong pressue to adopt an extensible representation. For
example,
there are tens of millions of wbXML devices in use, perhaps we should be
thinking
of how to evolve to something based on wbXML where data items can be
explicitly
typed when sent.

Dana K6JQ

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15. [aprsspec] Re: Datum (Was Re: [aprssig] Re: XASTIR help needed)

From: "Laurie - g6isy" <g6isy@dsl.pipex.com>
Date: Tue, 1 Apr 2003 21:51:15 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127108-2003.04.01-15.41.26--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

James Jefferson wrote:
> Laurie,
>
> The issue is that with a single standard datum (WGS84) only map
> display programs need to do datum conversions.

Jim,

With only WGS84 on-air it is not only map display programs that need to do
datum conversions.
Anyone trying to find the position on one of our paper maps would have to do
it as none of them use WGS84

> In the case of a D7, D700, HamHud or pretty
> much anything that isn't running a full blown PC or workstation,
> those calculations would not be possible.

I wouldn't expect a D7 or D700 to do any datum conversion. I would expect it
to display the posit it had received as is.
However, future radios (when a suitable method for sending the datum had
been agreed) would in addition be able to display the datum that had been
used.

--
73 Laurie - G6ISY

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16. [aprsspec] Re: Datum

From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 1 Apr 2003 21:56:11 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127109-2003.04.01-15.46.53--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <LYR26815-127107-2003.04.01-15.36.19--roger#peaksys.co.uk@lis
ts.tapr.org>, Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.m
il> writes
>The OpenTRAC protocol (http://www.opentrac.org) is pretty close to what
>you're describing. I've made the choice in the protocol specification to
>allow only WGS84, though. My feeling is that if you're going to be plotting
>coordinates by hand on a non-WGS84 map, using a receiving device that's not
>capable of translating the coordinates, you can go get yourself some
>transparency sheets and print up a WGS84 grid to overlay on your paper maps.

That really is not practical.

If you were working with a public service in an emergency situation,
would you seriously expect them to overlay their paper maps, which use
the standard datum for the area, with a WGS-84 grid, just because a few
radio hams insisted on using a datum different to the standard for the
area?

You have to take a realistic approach to this, and the only possible
realistic approach is that, in an emergency situation, it has to be
possible to relate local posits to the local paper maps without applying
a transformation, because equipment might well be in use that cannot
apply transformations.

To me the above is so blinding obvious that I can't see how anyone can
argue against it...

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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17. [aprsspec] Re: Datum

From: "Laurie - g6isy" <g6isy@dsl.pipex.com>
Date: Tue, 1 Apr 2003 22:06:32 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127111-2003.04.01-15.56.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Miller Scott Contr 30SCS/FTI wrote:
> you can go get yourself some transparency sheets and
> print up a WGS84 grid to overlay on your paper maps.

Not really practical, the maps may be of many scales. Also when you are
talking of one of our user services, the map is quite likely to be displayed
on one of their GIS computer screens.

--
73 Laurie - G6ISY

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

18. [aprsspec] Re: Datum

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 1 Apr 2003 13:11:13 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127112-2003.04.01-16.01.32--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 1 Apr 2003, Roger Barker wrote:

> That really is not practical.
>
> If you were working with a public service in an emergency situation,
> would you seriously expect them to overlay their paper maps, which use
> the standard datum for the area, with a WGS-84 grid, just because a few
> radio hams insisted on using a datum different to the standard for the
> area?
>
> You have to take a realistic approach to this, and the only possible
> realistic approach is that, in an emergency situation, it has to be
> possible to relate local posits to the local paper maps without applying
> a transformation, because equipment might well be in use that cannot
> apply transformations.
>
> To me the above is so blinding obvious that I can't see how anyone can
> argue against it...

;-)

We've been under severe time pressure before to convert coordinates
from one datum to another, or check them against paper maps quickly
during SAR activities. I can verify that it's not a good feeling to
have people breathing down your necks saying "aren't you done yet?"
when a helo or an ambulance is ready to launch. Compounding that
problem is the "what lat/long format did they give it to us in?"
question, which occurs all too often.

In an emergency situation, faster is better, however that can be
accomplished without losing accuracy.

I vote for allowing different datums on the air, but requiring each
and every packet with a non-WGS84 datum to specify the datum in a
machine-parsable _and_ human-parsable format. That way we can adapt
to different situations/regions quickly and easily. The APRS client
software can be upgraded over time to parse and convert these to the
datum the operator is currently using for map display.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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19. [aprsspec] Re: Datum

From: Dana Myers K6JQ <k6jq@arrl.net>
Date: Tue, 01 Apr 2003 13:14:29 -0800
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127113-2003.04.01-16.05.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Roger Barker wrote:

>In message <LYR26815-127107-2003.04.01-15.36.19--roger#peaksys.co.uk@lis
>ts.tapr.org>, Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.m
>il> writes
>
>
>>The OpenTRAC protocol (http://www.opentrac.org) is pretty close to what
>>you're describing. I've made the choice in the protocol specification to
>>allow only WGS84, though. My feeling is that if you're going to be plotting
>>coordinates by hand on a non-WGS84 map, using a receiving device that's not
>>capable of translating the coordinates, you can go get yourself some
>>transparency sheets and print up a WGS84 grid to overlay on your paper maps.
>>
>>
>
>That really is not practical.
>
>
Sure it is, in the case of a new protocol that's not already
widely deployed.   OpenTRAC isn't already deployed on a
bunch of legacy devices (like TH-D7s), so it can establish any
protocol it wishes. There's a real advantage to expressing
the position in a well-known form and allowing 'localization'
at the clients, since the clients know where they are and what
the display requirements are.

The potential downside is that some senders will convert from one
datum to WGS 84, only to have a receiver convert back to the original
datum. Wasted work but no harm done as long as the conversions are
consistent.

A real issue might be the ability to deploy OpenTRAC clients,
but that is another thing.

Dana K6JQ

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

20. [aprsspec] Re: Datum

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Tue, 1 Apr 2003 21:38:07 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127117-2003.04.01-16.28.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Roger, I know where you're coming from, I just don't know if this is the best way to do it. GPS receivers use WGS84, and to my knowledge there's no standard way to make sure the serial output is anything else. Where are the coordinates read from that are passed to the emergency services personnel? A PC should have no problem performing conversions on the receiving end (my PC here has a database of 975 reference systems), so I can only see it as being a problem if they're looking at a Kenwood or something. Which isn't something I'd want to subject my local emergency dispatcher to.

Ok, I'll admit that map overlays aren't the easiest solution. Now that I've had lunch and I'm not so grumpy. Dang diet. =]

So I guess the issue is being able to pass through non-WGS84 coordinates from appropriately configured trackers to dumb clients in a consistent manner. Which I'll concede might be convenient in certain circumstances. I just cringe every time we've got to tack more data onto the comment field, and add more complexity to the clients.

Scott

-----Original Message-----
From: Roger Barker [mailto:roger@peaksys.co.uk]
Sent: Tuesday, April 01, 2003 12:56 PM
To: APRS Spec Discussion List
Subject: [aprsspec] Re: Datum

In message <LYR26815-127107-2003.04.01-15.36.19--roger#peaksys.co.uk@lis
ts.tapr.org>, Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.m
il> writes
>The OpenTRAC protocol (http://www.opentrac.org) is pretty close to what
>you're describing. I've made the choice in the protocol specification to
>allow only WGS84, though. My feeling is that if you're going to be
plotting
>coordinates by hand on a non-WGS84 map, using a receiving device that's not
>capable of translating the coordinates, you can go get yourself some
>transparency sheets and print up a WGS84 grid to overlay on your paper
maps.

That really is not practical.

If you were working with a public service in an emergency situation, would you seriously expect them to overlay their paper maps, which use the standard datum for the area, with a WGS-84 grid, just because a few radio hams insisted on using a datum different to the standard for the area?

You have to take a realistic approach to this, and the only possible realistic approach is that, in an emergency situation, it has to be possible to relate local posits to the local paper maps without applying a transformation, because equipment might well be in use that cannot apply transformations.

To me the above is so blinding obvious that I can't see how anyone can argue against it...

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

21. [aprsspec] Re: Datum

From: Bob Bruninga <bruninga@usna.edu>
Date: Tue, 1 Apr 2003 16:42:20 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127118-2003.04.01-16.32.49--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Another place to put the datum would be on the end of the digpeater field.

I konw the purists wont like that, but it is a free field that is optional
and doesnt mess up anything while still allowing the full use of the
Position comment field or status fields.

And it allows up to 6 charactetrs...

Just a thought...
Bob

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22. [aprsspec] Re: Datum

From: Roger Barker <roger@peaksys.co.uk>
Date: Tue, 1 Apr 2003 22:47:03 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127119-2003.04.01-16.37.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

In message <7BF8A28ADD2DD511B50200902786EE0434ECB6@fsxumu03.vandenberg
.af.mil>, Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
writes
>Roger, I know where you're coming from,

You don't demonstrate that...

> I just don't know if this is the
>best way to do it. GPS receivers use WGS84, and to my knowledge there's no
>standard way to make sure the serial output is anything else. Where are the
>coordinates read from that are passed to the emergency services personnel?
>A PC should have no problem performing conversions on the receiving end (my
>PC here has a database of 975 reference systems), so I can only see it as
>being a problem if they're looking at a Kenwood or something. Which isn't
>something I'd want to subject my local emergency dispatcher to.

So, we're going to rule out the use of TH-D7s, TM-D700s, simple terminal
programs, etc, because of some "rule" that APRS has to use WGS-84 on
air? If there's an emergency, we only allow hams to help who have
suitably sophisticated equipment? Even if, in some situations, a TH-D7
is far more practical than a PC?

Ok, I give up. We're on different planets...

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
For WinPack go to - http://www.peaksys.co.uk

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

23. [aprsspec] Re: Datum

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Tue, 1 Apr 2003 22:05:15 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127120-2003.04.01-16.55.33--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Read the rest of my message... I'm conceding that your way makes sense for
certain situations. I don't like it, but considering the hardware that's

out there now and how you want to use it, it's practical. I just won't be
doing it that way in OpenTrac. Which shouldn't really be a problem, as long
as everyone knows from the start that's how it's going to be and understands
they'll have to take care of the translation if they want to use any other
system.

Honestly, I'm not trying to start flame wars here... just stating my
opinion.

Scott

-----Original Message-----
From: Roger Barker [mailto:roger@peaksys.co.uk]
Sent: Tuesday, April 01, 2003 1:47 PM
To: APRS Spec Discussion List
Subject: [aprsspec] Re: Datum

In message <7BF8A28ADD2DD511B5020090278586EE0434ECB6@fsxumu03.vandenberg
.af.mil>, Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
writes
>Roger, I know where you're coming from,

You don't demonstrate that...

> I just don't know if this is the
>best way to do it. GPS receivers use WGS84, and to my knowledge there's no
>standard way to make sure the serial output is anything else. Where are
the
>coordinates read from that are passed to the emergency services personnel?
>A PC should have no problem performing conversions on the receiving end (my
>PC here has a database of 975 reference systems), so I can only see it as
>being a problem if they're looking at a Kenwood or something. Which isn't
>something I'd want to subject my local emergency dispatcher to.

So, we're going to rule out the use of TH-D7s, TM-D700s, simple terminal
programs, etc, because of some "rule" that APRS has to use WGS-84 on
air? If there's an emergency, we only allow hams to help who have
suitably sophisticated equipment? Even if, in some situations, a TH-D7
is far more practical than a PC?

Ok, I give up. We're on different planets...

--
Roger Barker, G4IDE - roger@peaksys.co.uk
For UI-View go to - http://www.UI-View.com
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

24. [aprsspec] Re: Datum

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 1 Apr 2003 14:39:39 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127121-2003.04.01-17.29.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Tue, 1 Apr 2003, Bob Bruninga wrote:

> Another place to put the datum would be on the end of the digpeater field.
>
> I konw the purists wont like that, but it is a free field that is optional
> and doesnt mess up anything while still allowing the full use of the
> Position comment field or status fields.
>
> And it allows up to 6 charactetrs...

I would have no problem with that. We typically don't need all
eight digipeater fields for APRS uses on RF.

How about having it in the last used digipeater path -or- in the
comment field? Allow two options.

Do any of the firmware-based APRS rigs have restrictions on the
formation of a digipeater callsign? If so, or even just to provide
more flexibility, the datum could be specified either way.

If this can be agreed upon then we'll need some parsable strings
for specifying the datums within 6 characters plus a digit or two.
Hopefully some standard table used in GIS applications can be
adopted directly so there's no ambiguity as to the choice of
strings and proper parsing is guaranteed.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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25. [aprsspec] Re: Datum

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Tue, 1 Apr 2003 22:44:25 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127122-2003.04.01-17.34.52--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

See the Open GIS Consortium's SRID definitions.

-----Original Message-----
From: Curt Mills, WE7U [mailto:hacker@tc.fluke.com]
Sent: Tuesday, April 01, 2003 2:40 PM
To: APRS Spec Discussion List
Cc: APRS Spec Discussion List
Subject: [aprsspec] Re: Datum

On Tue, 1 Apr 2003, Bob Bruninga wrote:

> Another place to put the datum would be on the end of the digpeater field.
>
> I konw the purists wont like that, but it is a free field that is optional
> and doesnt mess up anything while still allowing the full use of the
> Position comment field or status fields.
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> And it allows up to 6 charactetrs...

I would have no problem with that. We typically don't need all
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more flexibility, the datum could be specified either way.

If this can be agreed upon then we'll need some parsable strings
for specifying the datums within 6 characters plus a digit or two.
Hopefully some standard table used in GIS applications can be
adopted directly so there's no ambiguity as to the choice of
strings and proper parsing is guaranteed.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

26. [aprsspec] Re: Datum

From: "Laurie - g6isy" <g6isy@dsl.pipex.com>
Date: Wed, 2 Apr 2003 00:08:06 +0100
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127123-2003.04.01-17.58.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Miller Scott Contr 30SCS/FTI wrote:
> Roger, I know where you're coming from, I just don't know if this is
> the best way to do it. GPS receivers use WGS84, and to my knowledge
> there's no standard way to make sure the serial output is anything
> else. Where are the coordinates read from that are passed to the
> emergency services personnel?

Scott,

Most modern GPS's I've seen can be set to almost any datum and will send
position data to that datum in the NEMA sentances.
There are a few that are WGS84 only and a few that are difficult to change.
I agree it's not normally possible to determine the datum from the NEMA
data, the datum in use would have to be entered manually.

A practical scenario is as follows :

Someone is sent to a location (defined by the emergency service) and the
co-ordinates are given using OSGB36.
They will have their GPS set to OSGB so they can find the correct position.
The progress of the person is monitored and plotted on maps (all in OSGB).

In addition objects may be transmitted where their positions have been
entered manually, having been read from paper maps.

The location of the objects will be read from the screen and passed to the
user service.
So far, so good, everything is in OSGB

Then, someone else, (who has a GPS that only does WGS84) is sent to the same
location. They will probably find the location ok but they will never appear
that they have and there is no way of telling that the two users are using a
different datum.

(We'll ignore the fact that in the UK we normally don't normally use
Lat/Long either, its normally NGR :-) but we can get over that nore easily.)

--
73 Laurie - G6ISY

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

27. [aprsspec] Re: Datum

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Tue, 1 Apr 2003 15:23:55 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127124-2003.04.01-18.14.09--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 2 Apr 2003, Laurie - g6isy wrote:

> Most modern GPS's I've seen can be set to almost any datum and will send
> position data to that datum in the NEMA sentances.
> There are a few that are WGS84 only and a few that are difficult to change.
> I agree it's not normally possible to determine the datum from the NEMA
> data, the datum in use would have to be entered manually.

Garmins output a proprietary sentence "$PGRMM" which tells us the

horizontal datum used. I don't know about other brands. Some
Garmins may not put out this sentence, and in fact I can turn on/off
individual sentences in one of my Garmins.

If it can be parsed automatically it should be, but there _must_ be
an option to enter it manually into APRS clients as well (I heartily
agree with you!).

Here are some sentences that may be of interest:

"$GPDTM". May be a datum sentence, not sure, never actually seen
one of these.

"$PGRMC". Contains earth datum index, details about the datum used
such as semi-major axis, inverse flattening, etc.

"$PGRMM". Currently active horizontal datum. Looks like this:

    $PGRMM,WGS 84*06

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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28. [aprsspec] publish or perish

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Tue, 01 Apr 2003 19:38:06 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127131-2003.04.01-19.30.45--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Here is your chance to become rich and famous! Well, maybe not rich, but
certainly famous.

The editorial board of Packet Status Register (PSR, TAPR□s quarterly
newsletter) is now soliciting articles, news items, etc. for the next issue
of the newsletter. Topics related to digital Amateur Radio will be given
preference and the editorial board reserves the right to determine what is
suitable for publication.

E-mail your contributions to wa1lou@tapr.org ASAP because the deadline for
the next issue of the newsletter is April 24.

Don't forget, if you are a TAPR member, you will add three months to your
TAPR membership for every article that is published in PSR.

73,

Stan Horzepa, WA1LOU, PSR Editor

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29. [aprsspec] Re: Datum (Was Re: [aprssig] Re: XASTIR help needed)

From: Juergen Frank <db2fm@jfsattv.de>
Date: Wed, 02 Apr 2003 07:00:11 +0200
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127163-2003.04.01-23.52.34--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This discussion is very interesting for me but sometimes also funny! I'll
explain, why: WGS-84 is the internationally selected map datum for ALL
contries around the world but there seem to be countries not willing to
adopt it for their paper maps. On the other side there is a country using
this map datum but not using standards on very lower levels (speed,
distances etc.) that have been standardised long before. But they are saying

that they are correct.

For our German paper maps I can say, that most of them are available with
WGS-84 and have our local system on the same map (Gauss-Krueger with
Potsdam-23) as a grid in a different colo(u)r. On ALL electronic maps
available from official sources you can switch coordinate systems (and map
datums at the same time). So for an SAR-mission it would be possible to
print out maps to be used for the needed area to be supplied to the rescue
teams. Are there no electronic maps (with hopefully switchable datums) to be
printed out available for the UK? At least for SAR-missions?

Just my two EUR-cts.

73 de Juergen

am 01.04.2003 22:51 Uhr schrieb Laurie - g6isy unter g6isy@dsl.pipex.com:

> James Jefferson wrote:
>> Laurie,
>>
>> The issue is that with a single standard datum (WGS84) only map
>> display programs need to do datum conversions.
>
> Jim,
>
> With only WGS84 on-air it is not only map display programs that need to do
> datum conversions.
> Anyone trying to find the position on one of our paper maps would have to do
> it as none of them use WGS84
>
>> In the case of a D7, D700, HamHud or pretty
>> much anything that isn't running a full blown PC or workstation,
>> those calculations would not be possible.
>
> I wouldn't expect a D7 or D700 to do any datum conversion. I would expect it
> to display the posit it had received as is.
> However, future radios (when a suitable method for sending the datum had
> been agreed) would in addition be able to display the datum that had been
> used.
>
> --
> 73 Laurie - G6ISY

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30. [aprsspec] Re: Datum

From: "Rich Beckwith" <wn0x@earthlink.net>
Date: Wed, 2 Apr 2003 21:51:49 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127305-2003.04.02-22.42.14--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I have researched datum conversion and gave up on-the-fly conversion because
of the complexity, performance issues and margin for error. I am not a
mathematician however, and strictly a novice GIS enthusiast.

As I understand it, the original datum is first converted to a reference
ellipsoid, then to the target datum in a multi-step process. Lots of
floating point math. The method varies, but in some cases up to 7
parameters are required for every datum you wish to convert.

Take a look at the Molodensky transform here:

http://www.colorado.edu/geography/gcraft/notes/datum/gif/molodens.gif

Here is a page I book marked for reference:

http://www.colorado.edu/geography/gcraft/notes/mapproj/mapproj.html

One issue I ran into is that even experienced GIS users don't completely
understand datums. Almost everyone new they were using NAD83, but had no
idea which projection (UTMxxx). This makes a world of difference if you are
trying to convert ESRI shape files to something useable in WGS84 for APRS.
Don't even think about mentioning the reference spheroid/ellipsoids etc.

It makes a lot of sense that our friends in GB would use the same datum
their public safety agencies use. At least their more consistent that the
US where many GIS shops are still using NAD27, most are moving towards NAD83
(various projections) and WGS84 for GPS.

It would be nice to know if a posit is in a datum I don't expect, but I'm
not sure what I would do about it if I did.

Regards,

Rich - Wn0x

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31. [aprsspec] Re: Datum

From: "Curt Mills, WE7U" <hacker@tc.fluke.com>
Date: Thu, 3 Apr 2003 09:52:22 -0800 (PST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127362-2003.04.03-12.42.48--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Wed, 2 Apr 2003, Rich Beckwith wrote:

> I have researched datum conversion and gave up on-the-fly conversion because
> of the complexity, performance issues and margin for error. I am not a
> mathematician however, and strictly a novice GIS enthusiast.

I have a Perl5 module that easily does the conversions between many
different datums. Xastir has datum.c and datum.h which do the same
thing (in fact the Perl5 and C code were derived from the same
source originally).

It's certainly possible to do it on the fly. Whether you'd want to
on a particularly busy internet stream (or lots of them at once!) is
quite another question.

Converting them as they come in from RF wouldn't be difficult, and
it it was assumed that they were WGS84 unless otherwise identified,
the conversion load would be greatly decreased.

--
Curt Mills, WE7U   hacker_NO_SPAM_@tc.fluke.com
Senior Methods Engineer/SysAdmin
"Lotto: A tax on people who are bad at math!"
"Windows: Microsoft's tax on computer illiterates!" -- WE7U
"The world DOES revolve around me: I picked the coordinate system!"

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32. [aprsspec] Re: Datum

From: "Rich Beckwith" <wn0x@earthlink.net>
Date: Thu, 3 Apr 2003 14:30:37 -0600
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127379-2003.04.03-15.21.15--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks for clearing that up Gerry.

A year or two ago someone contributed a couple of articles on maps/datums to the APRSSIG. I wish I had kept them because they were a great intro to the subject and were a fairly detailed description of reference spheriods, ellipsoids and map projections.

Ditto on the meta data. I have run across several maps I would have loved to have, but after playing unsuccesfully for hours trying to determine the projection and get a usable map I gave up. I have ArcView 3.2 and 8 available, but I believe version 8 is the only version I have that has a datum conversion tool.

What is your opinion of decimal degree vs degree/minutes/second? Everything I have written is based on decimal degree because I like working with that format. Performance issues aside (floating point math), 5 decimal places will give you pretty good positional accuracy and only requires 8 bytes per posit.

Rich - Wn0x

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33. [aprsspec] is there a draft updated spec?

From: Alan Crosswell <n2ygk@weca.org>
Date: Fri, 04 Apr 2003 14:15:43 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127468-2003.04.04-14.06.11--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Greetings,

Is there a draft updated spec anywhere or otherwise a summary of new features since the 1.0.1 spec was published? I am working on a new release of aprsdigi and would like to throw in any interesting new (experimental) features.

73
/a

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34. [aprsspec] Re: is there a draft updated spec?

From: Bob Bruninga <bruninga@usna.edu>
Date: Fri, 4 Apr 2003 14:21:38 -0500 (EST)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127469-2003.04.04-14.12.00--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Fri, 4 Apr 2003, Alan Crosswell wrote:

> Is there a draft updated spec anywhere or otherwise a summary of new
> features since the 1.0.1 spec was published? I am working on a new
> release of aprsdigi and would like to throw in any interesting new
> (experimental) features.

Yes, see my http://www.ew.usna.edu/~bruninga/aprs/errata.html

Bob

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35. [aprsspec] Re: is there a draft updated spec?

From: Alan Crosswell <n2ygk@weca.org>
Date: Fri, 04 Apr 2003 15:25:33 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: Alan Crosswell <n2ygk@weca.org>,
APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127481-2003.04.04-15.15.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Thanks, Bob. A quick read seems to indicate that the only areas to concern me
for a digipeater/router that are not in spec 1.0.1 is the APRS-IS q-construct.

Does this sound right?
/a

Bob Bruninga wrote:
> On Fri, 4 Apr 2003, Alan Crosswell wrote:
>
>
>>Is there a draft updated spec anywhere or otherwise a summary of new
>>features since the 1.0.1 spec was published? I am working on a new
>>release of aprsdigi and would like to throw in any interesting new
>>(experimental) features.
>
>
> Yes, see my http://www.ew.usna.edu/~bruninga/aprs/errata.html
>
> Bob
>

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36. [aprsspec] clarification of 3rd party tunneling in spec?

From: Alan Crosswell <n2ygk@weca.org>
Date: Fri, 04 Apr 2003 15:29:04 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127482-2003.04.04-15.19.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

When a 3rd party packet is de-tunneled, the source-path header is inserted in
front of the payload, prepended with the "}" character. It is not clear from
the spec, assuming the detunneling is going back to an ax.25 network, what the
ax.25 addresses should be. I am assuming it is the from-call of the digipeater,
to-call "APRS". But what is the content of the digipeater list?

73
/a

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37. [aprsspec] Re: is there a draft updated spec?

From: Jeff King <jeff@aerodata.net>
Date: Sat, 5 Apr 2003 14:01:57 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-127601-2003.04.05-13.52.44--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

This informative link should be added to the TAPR page that hosts the spec.
Anyone know how to accomplish this?

--
Jeff King, jeff@aerodata.net on 04/05/2003

On Fri, 4 Apr 2003 14:21:38 -0500 (EST), Bob Bruninga wrote:

>On Fri, 4 Apr 2003, Alan Crosswell wrote:
>
>> Is there a draft updated spec anywhere or otherwise a summary of new
>> features since the 1.0.1 spec was published?

>Yes, see my http://www.ew.usna.edu/~bruninga/aprs/errata.html

---
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38. [aprsspec] Digital BASH at Hamvention

From: John Ackermann N8UR <jra@febo.com>
Date: Fri, 11 Apr 2003 16:40:06 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128264-2003.04.11-16.45.28--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Announcing the 2003 TAPR Digital BASH!

What?
        An event for the digitally-inclined ham, featuring:
        * Buffet dinner
        * Keynote Address: A Software Defined Radio for the Masses,
            by Gerald Youngblood, AC5OG
        * TAPR special interest group meetings
        * "Birds of a Feather" gatherings

When?
        Friday evening, May 16, 2003
        Doors open at 7:00 pm; dinner served at 7:30 pm
        Speaker and meetings after dinner

Where?
        Kohler's Banquet Center, 4548 Presidential Way, Kettering
        (39 40.75N, 84 08.43W), just south of East David Road between Far
        Hills Ave. and Wilmingon Pike. Maps available on the TAPR web site
        (http://www.tapr.org/tapr/dayton, follow the link at the bottom of the
page),
        or at the TAPR booth.

How?
        Dinner requires advance registration and payment through TAPR.
        Tickets will be available at the TAPR booth on Friday, though
        we strongly encourage registration <before> Hamvention. The
        cost is $25.00 per person, tax and tip included.

        All amateurs are welcome to attend, enjoy the speaker, and
        participate in the meetings, although only those purchasing a
        dinner can eat.

To register, contact:
        Digital BASH
        c/o TAPR
        8987-309 E. Tanque Verde Road #337
        Tucson, AZ   85749-9399
        Phone: 972-671-TAPR (8277)
        Fax: 972-671-8716
        Internet: tapr@tapr.org

        Visa/Mastercard Accepted

Who?
        PACK*BASH is co-sponsored by TAPR -- Tucson Amateur Packet
        Radio, the national leader in digital communication -- and the
        Miami Valley FM Association, Dayton's packet radio club.

For more information (including maps), go to
http://www.tapr.org/tapr/dayton,
 or send email to tapr@tapr.org.

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39. [aprsspec] WWV Data?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 12 Apr 2003 08:14:22 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128388-2003.04.12-08.09.35--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm searching for the ability to announce WWV data via APRS. The APRS Protocol Spec appears to be silent on this use (I've searched on SFI and WWV). Is this true? Will this require "user defined data" and begging for authors to parse for it? :)

Ev, W2EV

--
What's cool in Amateur Radio?
http://www.BEACONet.org or join the on-line community by
sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

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40. [aprsspec] RE: WWV Data?

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 12 Apr 2003 07:34:35 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128390-2003.04.12-08.25.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

SEC is the space arm of NOAA. Dale's weather server issues NWS messages from SEC as they are issued. For instance, SECIND messages are issued every hour listing the current "numbers" relevant to propagation. To see the last one, you can go to http://www.aprs-is.net/wx/finger.asp and do a finger on SEC IND. You will get the full text. If you then check the APRS Format box, you will see how it goes out to APRS-IS.

You can also go to http://www.findu.com/cgi-bin/msg.cgi?call=SECIND to see the recent history.

I have been gating all SEC packets to RF for the past few years here in the Dallas area. They do not add much load at all (usually no more than 1 packet per hour) and the information is of interest to the amateur radio community (at least those of us that have an interest in propagation).

Hope this helps.

73,

Pete Loveall AE5PL
pete@ae5pl.net

> -----Original Message-----
> From: Ev Tupis (W2EV) [mailto:w2ev@arrl.net]
> Posted At: Saturday, April 12, 2003 7:20 AM
> Posted To: APRS Specification
> Conversation: [aprsspec] WWV Data?
> Subject: [aprsspec] WWV Data?
>
>
> I'm searching for the ability to announce WWV data via APRS.
> The APRS Protocol Spec appears to be silent on this use (I've
> searched on SFI and WWV). Is this true? Will this require
> "user defined data" and begging for authors to parse for it? :)
>
> Ev, W2EV
>
> --
> What's cool in Amateur Radio?
> http://www.BEACONet.org or join the on-line community by

> sending a blank eMail to: BEACONet-subscribe@yahoogroups.com
>
>
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> wa1lou@tapr.org
>
>

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41. [aprsspec] Re: WWV Data?

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 12 Apr 2003 08:46:53 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128391-2003.04.12-08.37.42--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 12 Apr 2003, Ev Tupis (W2EV) wrote:

> I'm searching for the ability to announce WWV data via APRS. The APRS Protocol
> Spec appears to be silent on this use (I've searched on SFI and WWV). Is this
> true? Will this require "user defined data" and begging for authors to parse
> for it? :)

Someone in our area transmits WWV bulletins every now and then I see them
on my mobile...

Bob
>
> Ev, W2EV
>
> --
> What's cool in Amateur Radio?
> http://www.BEACONet.org or join the on-line community by
> sending a blank eMail to: BEACONet-subscribe@yahoogroups.com
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
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> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://ssdl.stanford.edu/mims/

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42. [aprsspec] Re: WWV Data?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 12 Apr 2003 09:26:32 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128392-2003.04.12-09.21.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> Someone in our area transmits WWV bulletins every now and then I see them
> on my mobile...

Hi Bob,
Is there a standard APRS format for such data, or is is just free-form comment
text?

Ev

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

43. [aprsspec] RE: WWV Data?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 12 Apr 2003 09:32:12 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128393-2003.04.12-09.27.12--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

> I have been gating all SEC packets to RF for the past few years here in
> the Dallas area. They do not add much load at all (usually no more than
> 1 packet per hour) and the information is of interest to the amateur
> radio community (at least those of us that have an interest in
> propagation).

Hi Pete,
Yes, this helps. How do you gate the reports to RF? What format do they take?
Does any APRS software parse and display it? Questions, quesitons. :)

Ev

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Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org

44. [aprsspec] RE: WWV Data?

From: "AE5PL Lists" <HamLists@ametx.com>
Date: Sat, 12 Apr 2003 08:51:22 -0500
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128394-2003.04.12-09.42.10--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

There are two formats for weather messages now used by Dale's weather
server. If it is an alert, warning, etc., the message TO field will
start with NWS (per the spec). If it is just informational, such as the
hourly reports, the message TO field starts with SKY. This is from a
finger that I just did:

SECIND>APRS::SKYSEC :Flx... A012 BK322.....
PlnK322.....Ep112A809b379bEe425E952B {CAaAA
SECIND>APRS::SKYSEC :Flx... A012 BK322.....
PlnK322.....Ep966_846b364bEe414E976B {CBaAA
SECIND>APRS::SKYSEC :Flx... A011 BK3222....
PlnK3222....Ep153A108a638bEe465E111C {CCaAA
SECIND>APRS::SKYSEC :Flx... A011 BK3222....
PlnK3222....Ep163A102a347bEe533E143C {CDaAA

Note that these are standard message format. You have the solar flux
number (... means not available for that report), A and K numbers along
with the E flux numbers. If you play with
http://www.aprs-is.net/wx/finger.asp as indicated before, you can see
the full text message that corresponds to the last APRS packet sent.

I have APRS+SA set up to gate to RF anything from callsigns starting
with SEC (SEC* is the actual setting in APRS+SA). These messages all
originate from SEC so they get gated to RF.

As for software parsing it, all software should parse it. You may need
to add SKYSEC to your group bulletin list to see the informational
messages.

Hope this helps. I have found it very helpful, especially when there
have been solar flares. I have usually found a warning issued via SEC
before the band I am working goes dead.

73,

Pete Loveall AE5PL
pete@ae5pl.net

> -----Original Message-----
> From: Ev Tupis (W2EV) [mailto:w2ev@arrl.net]
> Posted At: Saturday, April 12, 2003 8:37 AM
> Subject: [aprsspec] RE: WWV Data?
>
> Yes, this helps. How do you gate the reports to RF? What
> format do they take?
> Does any APRS software parse and display it? Questions, quesitons. :)

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45. [aprsspec] re: WWV Data?

From: "Ev Tupis (W2EV)" <w2ev@arrl.net>
Date: Sat, 12 Apr 2003 10:35:44 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128411-2003.04.12-10.30.42--lyris.aprsspec#tapr.org@lists.tapr.org>
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High quality information, as usual, Pete. I'm unsure how to get this
information from wherever it resides and put it on RF (which is what I want to
do as part of the PropNET/BEACONet project). I'll ask further questions on this
topic off-list as this is neither tactical or emergency in nature. :)

Thanks, sincerely.
Ev, W2EV

AE5PL Lists wrote:
>
> There are two formats for weather messages now used by Dale's weather
> server. If it is an alert, warning, etc., the message TO field will
> start with NWS (per the spec). If it is just informational, such as the
> hourly reports, the message TO field starts with SKY. This is from a
> finger that I just did:
>
> SECIND>APRS::SKYSEC :Flx... A012 BK322.....
> PlnK322.....Ep112A809b379bEe425E952B {CAaAA
> SECIND>APRS::SKYSEC :Flx... A012 BK322.....
> PlnK322.....Ep966_846b364bEe414E976B {CBaAA
> SECIND>APRS::SKYSEC :Flx... A011 BK3222....
> PlnK3222....Ep153A108a638bEe465E111C {CCaAA
> SECIND>APRS::SKYSEC :Flx... A011 BK3222....
> PlnK3222....Ep163A102a347bEe533E143C {CDaAA
>
> Note that these are standard message format. You have the solar flux
> number (... means not available for that report), A and K numbers along
> with the E flux numbers. If you play with
> http://www.aprs-is.net/wx/finger.asp as indicated before, you can see
> the full text message that corresponds to the last APRS packet sent.
>
> I have APRS+SA set up to gate to RF anything from callsigns starting
> with SEC (SEC* is the actual setting in APRS+SA). These messages all
> originate from SEC so they get gated to RF.
>
> As for software parsing it, all software should parse it. You may need
> to add SKYSEC to your group bulletin list to see the informational
> messages.
>
> Hope this helps. I have found it very helpful, especially when there
> have been solar flares. I have usually found a warning issued via SEC
> before the band I am working goes dead.
>
> 73,
>
> Pete Loveall AE5PL
> pete@ae5pl.net
--
What's cool in Amateur Radio?
http://www.BEACONet.org or join the on-line community by
sending a blank eMail to: BEACONet-subscribe@yahoogroups.com

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46. [aprsspec] Re: WWV Data?

From: Bob Bruninga <bruninga@usna.edu>
Date: Sat, 12 Apr 2003 12:23:07 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128439-2003.04.12-12.14.59--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Its free format
Bob

On Sat, 12 Apr 2003, Ev Tupis (W2EV) wrote:

> > Someone in our area transmits WWV bulletins every now and then I see them
> > on my mobile...
>
> Hi Bob,
> Is there a standard APRS format for such data, or is is just free-form comment
> text?
>
> Ev
>
>
> ---
> You are currently subscribed to aprsspec as: bruninga@nadn.navy.mil
> To unsubscribe send a blank email to leave-aprsspec-11589P@lists.tapr.org
> Questions regarding the SIG go to the SIG administrator: wa1lou@tapr.org
>

de WB4APR@amsat.org, Bob

PCsat WEB page   http://www.ew.usna.edu/~bruninga/pcsat.html
ISS-APRS FAQ: http://www.ew.usna.edu/~bruninga/iss-faq.html
CUBESAT Designs   http://www.ew.usna.edu/~bruninga/cubesat.html
APRS LIVE pages   http://www.ew.usna.edu/~bruninga/aprs.html
APRS SATELLITES   http://www.ew.usna.edu/~bruninga/astars.html
MIM/Mic-E/Mic-Lite http://ssdl.stanford.edu/mims/

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47. [aprsspec] Filtering for PWM synthesized FSK

From: Miller Scott Contr 30SCS/FTI <Scott.Miller@vandenberg.af.mil>
Date: Sat, 12 Apr 2003 18:26:36 -0000
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-128448-2003.04.12-14.17.25--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

I'm working on a simple AX.25 encoder system to be used in an ultracheap
KISS TNC and a MIM-style telemetry module, and I've got a question some of
you might be able to answer.

To generate the FSK tones, I'm using a sine lookup table to drive a
pulse-width modulated output. The PWM output goes through an RC circuit to
smooth it out, and ideally should go into a low-pass filter to remove the
carrier and harmonics generated by the PWM sample frequency. My question
is, if I'm feeding the audio into a radio, how necessary is that filtering?
Is the radio itself going to have a low-pass filter? If filtering is
necessary, can someone recommend a simple filter circuit?

The desired output frequencies are 1200 and 2200 hz, of course, and the PWM
sample rate will probably be around 32 or 64 khz. Maybe less, if practical.

Please forgive my ignorance on this subject... I'm a digital guy, and my
analog experience is seriously lacking.

Thanks...

Scott
N1VG

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48. [aprsspec] Packet Status Register deadline nears

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Mon, 21 Apr 2003 19:38:40 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-129449-2003.04.21-19.38.23--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The deadline for the next issue of Packet Status Register (PSR), TAPR's
quarterly newsletter, is Thursday, April 24, so please get your submissions
to me as quick as a bunny!

73,

Stan, WA1LOU

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May 2003

Original source file: aprsspec.0305
Source: http://ftp.tapr.org/tapr_history/SIG_Archives/aprssig/aprsspec/mail_archive/aprsspec.0305

1. [aprsspec] Spring 2003 issue of Packet Status Register (PSR) now available

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Mon, 05 May 2003 20:00:28 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-131532-2003.05.05-20.19.22--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

The Spring 2003 issue of Packet Status Register (PSR), TAPR's quarterly
newsletter is now available at the TAPR web site (www.tapr.org).

This issue of PSR has the following contents:

802.11b Used in Ham's Shuttle Recovery Efforts by Doug Kilgore, KD5OUG

A New Tactical Reporting Protocol by Scott Miller, N1VG

Announcing N2YGK's Linux aprsdigi Version 2.4.3 3 by Alan
Crosswell, N2YGK

APRS IP Mobile in a Non-Dynamic Wireless Environment or 802.11 APRS by
Darryl Smith, VK2TDS

Portable Tactical Digital Communications Using Off-the-Shelf Consumer
Components by Ed Carp, N7EKG

President's Corner: Dayton, Directors and the DCC by John Ackermann, N8UR

Real Networking: Is It the Key to Keeping & Reviving Packet? by Ron Sauer,
K9RKI

Revitalizing "Plain" Packet by Jim Wagner, KA7EHK

TAPR and ARRL 22nd Annual Digital Communications Conference

TAPR Membership by Darryl Smith, VK2TDS

TAPR Order Form

WA8WDQ Replaces K0PFX on TAPR Board

Welcome to Jeannie, The House That Listens by Don Marquardt, K9SOA

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2. [aprsspec] Last Reminder: Hamvention Digital Bash!

From: "John R. Ackermann N8UR" <jra@febo.com>
Date: Tue, 13 May 2003 10:15:19 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-132597-2003.05.13-10.08.18--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

Just a reminder that the annual TAPR Digital BASH will be held Friday
evening at Hamvention. Our keynote speaker will be Gerald Youngblood,
AC5OG, who will describe -- and demonstrate -- his HF software defined
radio, the SDR-1000. I have been playing with the SDR-1000 myself, and it
is a real step forward for ham SDR experimentation. If you're at
Hamvention, you'll want to hear Gerald and see the radio in action.

Tickets are $25 and will be available at the TAPR booth up until about 3:45
Friday afternoon, when we have to call in the final count. Directions to
the banquet hall will also be available at the booth.

And, remember that TAPR will have a bigger and better presence at
Hamvention this year. Our new booth spaces are 607, 608, and 615, just a
little bit down and over from our old spot.

See you there!

73,

John N8UR

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3. [aprsspec] Re: Clarification of User Defined Data

From: Bob Bruninga <bruninga@usna.edu>
Date: Mon, 19 May 2003 18:32:29 -0400 (EDT)
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Cc: APRS Spec Discussion List <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133410-2003.05.19-18.25.06--lyris.aprsspec#tapr.org@lists.tapr.org>
Rendered body type: text/plain

On Sat, 15 Mar 2003, Steve Dimse wrote:

> >Also...what UDD's have been assigned already?
> >
> I don't think any have officially been assigned, if I'm wrong, perhaps
> Bob can post a list. I know at least one person has claimed to have
> tried to get one registered and when that failed just began using what
> he wanted.

I have assignemd one to everyone that has asked, though I was slow in
response to one... There is a list on my Errata page:

http://www.ew.usna.edu/~bruninga/aprs-errata.html

de WB4APR, Bob

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4. [aprsspec] Call for Papers

From: Stan Horzepa <stanzepa@earthlink.net>
Date: Tue, 20 May 2003 20:45:42 -0400
To: "APRS Spec Discussion List" <aprsspec@lists.tapr.org>
Message-ID: <LYR11589-133564-2003.05.20-20.42.02--lyris.aprsspec#tapr.org@lists.tapr.org>
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Technical papers are solicited for presentation at the 22nd Annual ARRL and
TAPR Digital Communications Conference to be held September 19-21, 2003 in
Hartford, Connecticut, and publication in the Conference Proceedings. Annual
conference proceedings are published by the ARRL. Presentation at the
conference is not required for publication. Submission of papers are due by
August 5th, 2003 and should be submitted to:

Maty Weinberg, ARRL
225 Main Street
Newington, CT 06111

or via the Internet to
maty@arrl.org

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